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ABSTRACT

Designed to assist Computerized Vocational Information System (CVIS) users in evaluating projects in local secondary school sites, the handbook provides users with a variety of variables or viewpoints from which to assess the CVIS system. Four different approaches are presented to CVIS evaluation: the analysis of use patterns; the reaction of users and nonusers of the system; the effect of use on students' vocational planning; the cost-effectiveness of the system. Users might be analyzed by: sex, grade level, quartile by rank and/or test information, post high school plans, and reason for use. Use patterns can be analyzed by specific subsystem, by terminal, and by type of user (student, counselor, administrator, teacher). Approximately 80 pages of questionnaires (student, counselor, administrator, teacher, and parent) are included as examples of the types of questions which might be asked. Suggestions for measuring changes in vocational maturity and student exploratory behavior are offered. The Occupational Plans Questionnaire has been included to realize crystallization of student vocational plans and the Vocational Plans Questionnaire to measure change in occupational knowledge. The concluding section is a 30-page cost justification guide by IBM Corporation (cost analysis of CVIS operation at Willowbrook High School, Illinois). (Author/EA)

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COMPUTERIZED VOCATIONAL INFORMATION SYSTEM EVALUATION MANUAL

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A FUTURISTIC CONCEPT OF VOCATIONAL AND EDUCATIONAL DECISION-MAKING

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INTRODUCTION

This handbook was prepared in response to requests of CVIS users for assistance with knowing how to go about evaluation of the CVIS Project in local sites. Evaluation is important in order to understand the effectiveness of what we have together undertaken; in order to have basis for decisions about the appropriation of funds; and in order to appropriately assign counselor and computer functions. The material contained in this handbook is a synthesis of materials and ideas from the central CVIS development site and from a group of professionals who spent a day together to consider the content of this handbook. Those who have contributed materials and ideas are Dr. Betty Bosdell, Professor of Counselor Education at Northern Illinois University; Dr. JoAnn Harris, Director of Project CVIS and Associate Professor at Northern Illinois University; Dr. Mary Lee Smith, Assistant Professor, College of Education, University of Colorado; Dr. Merle Strong, Director, Center for Studies in Vocational and Technical Education, University of Wisconsin-Madison; Mr. Daniel Jarosik, Assistant to the Director, Center for Studies in Vocational and Technical Education, University of Wisconsin-Madison; and Dr. David Tiedeman, Professor of Counselor Education and Director of the ERIC Clearinghouse in Career Education, Northern Illinois University.

This handbook is not meant to suggest a cookbook approach to evaluation of the CVIS Project in your setting. It is meant to bring to your attention a variety of variables or viewpoints from which the CVIS system can be viewed and to suggest ways and materials for carrying out such evaluation. A given site might select one or some of the approaches described or, with adequate funds and personnel, undertake a combination of all of them. The final section of the handbook provides a listing of evaluation which has already been done

on the CVIS system with information about how to secure the details and findings of each study.

The variety and number of CVIS sites now existing suggest an array of context variables which need to be taken into account as a part of an evaluative study. Since these variables differ so markedly from site to site, they cannot be explicitly defined by the group which worked on the ideas in this publication. The following listing might serve to remind you of these variables in your own school or to remind you of others which need to be taken into consideration. Further, such variables might be used either descriptively to define the setting or in contrast with each other (i.e. terminal use in the guidance office vs. terminal use in the library or change in vocational maturity of students who have used CVIS alone and those who have used CVIS and had counselor assistance with career planning) for the purpose of making informed decisions about CVIS use. Examples of such variables are:

1. Location of CVIS terminals and the amount and kind of supportive help available to students during use.
2. Availability of CVIS terminals, i.e. number of hours per day, number of terminals provided, amount of time which the student has at his disposal for use of terminals.
3. The kind of terminals or mode of operation being used, i.e. typewriter terminals, cathode ray tube terminals, or batch-processing mode.
4. The amount of support given to the system by counselors, administrators, and data processing people.
5. The quality of technical operation.
6. The amount and effectiveness of inservice training programs with counselors, teachers, and administrators.
7. The source of impetus for acquiring and maintaining the CVIS system,

7. contd.

i.e., the counselors themselves for guidance purposes; the director of guidance or pupil personnel services for guidance purposes; the administrators for administrative purposes; the grants officer for the sake of adding strength to a proposal which would bring significant funds to the district; or the data processing staff for the purpose of justifying, expanding, or adding capabilities to data processing functions.

8. The degree to which students are given orientation to the system.

9. The degree to which the CVIS system is truly integrated into and accepted as a part of the school's ongoing guidance program.

10. The school's setting and the composition of its student body, i.e. urban, rural, suburban environment; junior high, secondary, community college, four-year college, technical school population, adult population; general ability and reading level of users; degree of cultural disadvantage, etc.

11. The quality, availability and quantity (counselor:student ratio) of the existing guidance program and its areas of emphasis.

12. The source of funding for the installation, i.e. all local, all outside funding, or a combination.

13. The type of leadership which is given to the project, both in terms of quality and type, i.e. is the project director a curriculum person, a guidance person, an administrator, a data processing person.

14. The source of computer capability, i.e. is it local or provided by an outside source such as a service bureau, a regional data processing center, or a local college.

15. The degree of community support for the system from parents and community organizations and businesses.

16. The degree of localization of the system, i.e. the inclusion of personal data about the students themselves and the inclusion of local data files on community colleges, technical schools, jobs, and/or curricular offerings.
17. The timeliness of the text and data files in the system, i.e. the degree to which all scripts and files are updated.
18. The degree of control which researchers have during the time that evaluation is being done.
19. The goals set for the CVIS system in the local site and the goals and target population set by the original development team.

The existence of great variation in all of these context variables makes one standard prescribed model for evaluation of the CVIS project impossible; it also makes one interpretation of findings impossible. Further, the same evaluative plan used in one setting with given findings might produce an entirely different set of findings in another setting due to the variation of one or some of these interacting context variables. It therefore becomes important that you analyze these variables for your own setting and that both the evaluation design and the analysis of your findings be constructed in the light of these variables; further, any report of your findings should give the reader or listener a clear picture of the context in which the evaluation was carried out.

The section which follows will present four different approaches to the evaluation of CVIS: the analysis of use patterns; the reaction of users and non users of the system; the effect of use on students' vocational planning; and the cost-effectiveness of the system.

WAYS TO EVALUATE CVIS

Analysis of Use Patterns

One way to evaluate the use of CVIS is to analyze the characteristics of its users and the pattern of use of different parts of the system and of different terminals. A local site might want to analyze users by some or all of the following characteristics:

1. Sex
2. Grade level
3. Quartile by rank and/or test information
4. Post high school plans
5. Reason for use (required or voluntary)

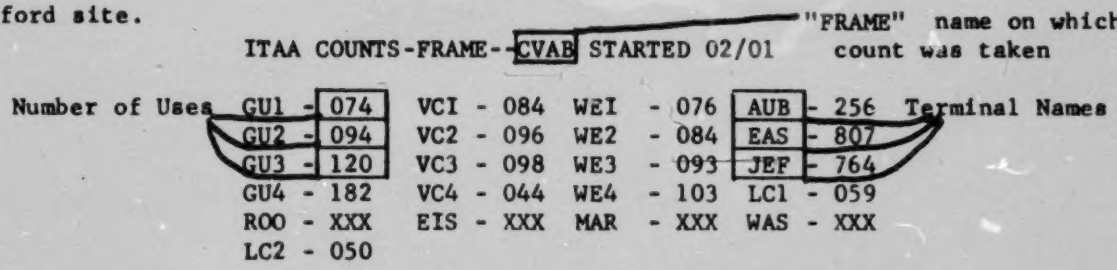
This procedure allows you both to calculate your average per-day use rate and to know whether the system is equally usable, or has equal appeal, to students of both sexes, all ability and achievement levels, and various levels of educational aspiration.

Another way to analyze use patterns is to analyze use by specific subsystem, by terminal, and by type of user (student, counselor, administrator, teacher). Such data will assist you to reach decisions about whether to eliminate some branches of the system; whether your terminals are appropriately located; and whether the proportion of time or equipment allotted to students, counselors, administrators, and teachers is appropriate.

The analysis of use patterns can be done in three ways: by hand tally, by computer batch-processing, or by on-line accounting. The first, though possible, may be less desirable because it implies secretarial time to keep accurate count of users and perhaps to look up additional information about them. The second way implies thorough knowledge of the system by your technical people

and the writing of some additional programs. For example, each time a student uses a given subsystem this fact is recorded within his student record (for use on the frame called USES). A program could be written to tally the use of each script by all students by collecting this data from each individual student record; further, the computer could divide these uses by sex and/or class rank and/or year level. A log could be kept by terminal numbers, so that each time a given terminal signs on, this fact could be logged under the appropriate terminal number; further, the log could record whether the student programs were entered, the counselor-administrative programs, or the computer-assisted instruction material. For the sake of analysis, such data could be printed out at intervals agreed upon by the project director and the data processing center. One example of an analysis-of-use table is included on the following page as Figure 1.

The third way to analyze user and use pattern characteristics is to develop or use existing programs which provide for on-line recall of statistical data. Such a program would allow an authorized person to call up a cumulative table of user characteristics or to call up the use record of a particular terminal to see the cumulative number of users on that given terminal by subsystem, user type, and mean clock time. An accounting system on-line has been developed by the Rockford Public School System (Rockford, Illinois) and is available from them. The following example is from the Rockford site.



Example of On-line display of student use of system at Rockford Public Schools.

FIGURE 1

WILLOWBROOK HIGH SCHOOL STUDENT USE - School Year 1969-70

# of Uses	FR.		SOPH.		JR.		SR.		BOYS		GIRLS		Q 1		Q 2		Q 3		Q 4		TOTAL
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1	56	.11	135	.27	165	.33	148	.29	234	.46	271	.54	158	.32	101	.20	116	.23	130	.25	505
2	24	.08	91	.34	101	.38	47	.18	134	.50	129	.50	78	.30	69	.26	63	.24	53	.20	526
3	8	.06	37	.33	43	.42	16	.15	57	.54	47	.46	30	.29	22	.23	32	.31	16	.17	312
4	5	.08	22	.36	25	.40	5	.08	34	.56	23	.40	14	.25	17	.30	10	.18	16	.27	228
5	2	.05	13	.30	22	.50	4	.05	22	.50	19	.50	13	.31	11	.27	13	.31	4	.11	205
6	1	.06	4	.36	6	.54	--	--	9	.78	2	.22	5	.45	3	.27	1	.09	2	.19	66
7	--	--	3	.42	4	.56	--	--	4	.56	3	.42	3	.43	1	.14	--	--	3	.43	49
8	--	--	3	.56	2	.40	--	--	5	100	--	--	--	--	2	.40	1	.20	2	.40	40
9	--	--	6	.72	2	.27	--	--	6	.72	2	.28	3	.37	1	.13	1	.13	3	.37	72

Evening users from other high schools in DuPage County - May-June, 1970 — 127

TOTAL USES — 2,130

69

User and Non-User Reaction

One important question to ask is "How do users of the CVIS system react to it?" This question begins to get at the quality of the system's use rather than the quantity of its use. Since there may be several types of users - - students, counselors, administrators, teachers - the reaction of each type could be completely polled or sampled. Further, if student use is voluntary, it may be instructive to know what the attitudes of non-users are and what the differences are between the users and non-users. Hopefully, the synthesis of all these reactions will assist with the inservice and orientation programs, the publicity campaigns, the understanding of the role of the system in relation to the total guidance program, the plans for changes in the system, and with the maintenance of funding. Again, there are at least three ways to obtain such data: by individual interview with a randomly-selected sample of users; by passing out or mailing out questionnaires; or by placing the evaluation questions on-line so that students complete them at the terminal and the computer tallies and analyzes them.

The examples which follow are precisely that. None of them is intended to be the "right form". They are intended to give CVIS users an idea of the types of questions which may be asked. Undoubtedly, there are different or additional questions which a site may want to add in order to adequately determine whether the project has met the objectives set for it in the local site. Taking the time to collect such data will pay off in terms of understanding the effectiveness of the system in your site and in terms of having hard data to give your administration and board in order to substantiate the continued support of the system.

All of the following forms have been used. The developer of the form and the site in which it has been used are stated. CVIS sites may feel free to use and reproduce any parts of these forms.

STUDENT QUESTIONNAIRES

CVIS USER REACTION FORM *

Before you sign-off, please respond to the following questions.

1. Are you a (1) student (2) teacher (3) counselor (4) parent (5) school administrator (6) guest?

2. If you are a student, what is your present grade?
(1) junior high (2) 10th (3) 11th (4) 12th (5) other

3. Which system did you use this time?
(1) Occupational Information (2) College Planning
(3) Apprenticeship Information (4) Trade and Specialized
(5) Military Information (6) Local Jobs (7) Financial Aid Search

4. Were you able to understand what you read?
(1) All of it (2) Most (3) Some (4) Little (5) None of it

5. How would you rate the quality of the information you received?
(1) Very good (2) Good (3) OK (4) Poor (5) Very poor

6. How much information did the system have that you wanted?
(1) Much (2) Some (3) Little (4) Nothing

7. Did you feel that using CVIS was
(1) Very interesting (2) Interesting (3) OK
(4) Boring (5) Very boring

8. Would you recommend CVIS to a friend?
(1) Very strongly (2) Yes (3) Maybe (4) No
(5) Definitely not

9. Has using CVIS increased your need to see a counselor?
(1) Very definitely (2) Yes (3) Maybe (4) No
(5) Definitely not

10. How many new ideas about occupations and/or colleges has CVIS given you?
(1) Many (2) Some (3) Few (4) None

11. Has using CVIS assisted you to make a choice about college and/or occupations?
(1) Very definitely (2) Yes (3) Maybe (4) No
(5) Definitely not

12. Has using CVIS assisted you to change your mind about colleges or occupations you had been considering?
(1) Very definitely (2) Yes (3) Maybe (4) No
(5) Definitely not

* Contributed by Dr. Mary Lee Smith, University of Colorado; used in evaluation of CVIS at Boulder Valley School District.

CVIS EVALUATION *

PRE-USE ITEMS

1. Do you believe that you now know how to choose an occupation or career?
   Please type 'yes', 'no', or 'maybe'

2. Do you feel that you have already made a definite occupational choice?
   Please type 'yes' or 'no'
   If yes
   Please type in the name of the occupation which you have chosen.

3. Have you visited the Guidance Office for occupational counseling or information this year (excluding use of CVIS)?
   Please type 'yes' or 'no'
   If yes
   About how many times this year? Please type in the number of times. Then shift and enter.

4. Following is a list of things which people might consider when choosing an occupation. Please type in the number or numbers of those items which you consider most important in this decision:
   1. My educational plans
   2. My parents' wishes
   3. The people I would meet
   4. My grades in school
   5. My academic ability
   6. My personality traits
   7. My interests
   8. The salary which the occupation pays

* Developed by CVIS team at Willowbrook for on-line use.

CVIS EVALUATION *
Post-use Items

Please circle:
Year in School 9 10 11 12 13 14

Male or Female NAME _____

1. Did you visit the Guidance Office this year for occupational counseling, or information, before using CVIS? Yes No

2. Did you learn something about yourself by using the computer? Yes No

2A. If yes, what did you learn?

a. My ability in relation to other students
b. My Rank in Class
c. Category of my vocational interest
d. My ability to succeed in my chosen plan of education
e. Other _____

3. Did you learn anything new about occupations by using the computer? Yes No

3A. If yes, what did you learn? _____

_____

_____

4. Do you remember how the computer has the 450 jobs organized? Yes No

4A. If yes, did this system help clarify your thinking? Yes No

5. If you received a list of occupations today, did it give you new ideas which you had not considered before? Yes No

5A. If yes, did you, or will you explore these further?

a. I did explore one or some today.
b. I will return to explore them by computer later.
c. I will see my counselor to discuss them.
d. I will use vocational reference books.
e. Other sources _____

6. Were you looking for occupations you did not find? Yes No

6A. If yes, please list them.

7. Did you find the occupational print outs: Useful? Yes No
Interestingly written? Yes No

8. Did you feel you knew how to choose an occupation before you used CVIS? Yes No

* Developed by the CVIS team at Willowbrook for on-line use.

CVIS Evaluation

9. Do you feel better able to choose an occupation after using CVIS? Yes No

10. Did the information about your grades, ability, and interests help you choose some occupations to explore? Yes No

11. Following is a list of things people might consider when choosing an occupation. Please circle the items you consider most important.

    1. My educational plans
    2. My parents' wishes
    3. The people I would meet
    4. My grades in school
    5. My personality traits
    6. My interests
    7. Salary the occupations pays
    8. My academic ability
    9. Other _____

12. What was your reaction to 'machine counseling'? Please circle the number of your choice.

    1. I liked it very much
    2. It was OK
    3. I feel neutral about it
    4. It was an unpleasant experience
    5. I disliked it very much

12A. If you circled #1 or 2 in question 12 what did you like about it? Please circle the numbers of your choices.

    1. Speed
    2. Personal touch of the script
    3. Good information about occupations
    4. Things I learned about myself
    5. Organized approach to occupations
    6. Relating my ability and grades to jobs
    7. Impartiality of computer
    8. Fun experience
    9. Other _____

12B. If you circled #4 or 5 in question 12 what did you dislike about it? Please circle the numbers of your choices.

    1. Coldness, impersonality
    2. Computer beat me at tic-tac-toe
    3. Machine didn't work
    4. Information was boring
    5. Didn't get any new ideas about occupations
    6. Computer didn't decide for me
    7. Couldn't get occupation I wanted
    8. Didn't like the messages I received
    9. Other _____

13. Did you think that you had already made a definite choice of occupation when you began using CVIS today? Yes No

CVIS Evaluation

13A. If yes
What is your present thinking about the vocational choice you stated earlier today? Please circle the number of your choice.

1. I'll stick with it
2. I've received some new ideas for further exploration
3. I'm thoroughly confused now
4. None of these

13B. If no
Which of the following best describes the present state of your vocational planning? Please circle the number of your choice.

1. I have made a tentative choice
2. I have two or more occupations in mind which I will explore further.
3. I am thoroughly confused
4. None of these

14. Rate the following items in their importance to your needs or interests right now.

Rating Scale:
1. Most important
2. Of some importance
3. Of little importance
4. Of least importance
5. Does not apply

_____ To find out more about myself

_____ To find out if some high school courses relate to a certain occupation

_____ To identify or discover more or new occupations for myself.

_____ To get more information about a particular occupation

_____ To choose or pick an occupation for myself

_____ To find an employment opportunity for the occupation I have chosen

_____ To find where I can get training for the occupation I have chosen

_____ To get more general information about college

_____ To choose a college major

_____ To choose a college

15. Thanks for your time. Now here's your chance to say anything you'd like about CVIS. Turn the sheet over for more room.

CVIS STUDENT QUESTIONNAIRE *

Willowbrook High School

NAME _____ YEAR IN SCHOOL 9 10 11 12

SOCIAL SECURITY # _____ DATE _____
(if known)

Yes No 1. Have you used CVIS either this year or last year?
If so, how many times? _____

1 2 3 4 2. Based on your semester grades since you entered high school, what quarter of your class (top quarter = quarter number 1) do you think you're in?

1 2 3 4 3. Based on ability testing given to you since you entered high school, which quarter of the class do you think you are in?

_____ 4. What are your current plans for further education? Please place the letter of your choice in the space to the left.

a. No further training after high school
b. Apprenticeships or on-the-job training
c. Trade or technical school
d. Junior college
e. Four-year college
f. Degrees beyond four-year college

Yes No 5. Do you think that you know how to choose an occupation? How should a person go about making this decision?

a. _____

b. _____

c. _____

d. _____

e. _____

6. The following are items which many people consider important about a job. Tell us how important they are to you by rating them 1, 2, or 3.

_____ a. high salary
_____ b. prestige
_____ c. good opportunity for promotion
_____ d. opportunity to meet influential people
_____ e. opportunity to be of service to other people
_____ f. opportunity to use one's talents or abilities

1 = of highest importance
2 = of some importance
3 = of little or no importance

* Developed by the Willowbrook CVIS team and administered to all sophomores in September and again in May.

_____ g. Opportunity to do the kinds of things one really likes to do

_____ h. short and convenient working hours

7. What occupations, if any, are you currently considering?

a. _____

b. _____

c. _____

d. _____

e. _____

8. Using the list to the right, please tell us how much education you think is required for each of the following occupations.

_____ Carpenter
_____ Auto salesman
_____ Social worker
_____ Printer
_____ TV repairman
_____ Chemist
_____ Truck driver
_____ Beauty operator
_____ Practical nurse
_____ Construction worker
_____ Oceanographer
_____ Pilot

a. no particular training
b. on-the-job training or apprenticeship
c. technical or specialized school
d. college

9. Using the key to the right, please categorize each of the following occupational fields by their future employment outlook:

_____ Railroad (passenger) occupations
_____ Health occupations
_____ Data processing occupations
_____ Agricultural occupations
_____ Air transportation occupations
_____ Construction trades
_____ Mining occupations

a. jobs in this field will expand in the future
b. occupations in this field are disappearing or decreasing

10. Occupations can be divided into three large categories:
    a) those which deal primarily with objects, or <u>things</u>, such as auto mechanic, carpenter, and printer.
    b) those which deal primarily with <u>people</u>. such as teacher, social worker, sales clerk.
    c) those which deal primarily with facts, information, or <u>data</u>, such as statistician or bookeeper.

Using these three divisions, please classify each of the following by placing a, b, or c in front of it:

_____ laboratory technician
_____ practical nurse
_____ airline pilot
_____ public relations worker
_____ welder
_____ accountant
_____ real estate salesman
_____ computer programmer

11. Please indicate the salary range you think is current in 1969 in the Chicago area for each of the following occupations:

_____ beginning high school teacher
_____ plumber
_____ airline pilot
_____ doctor
_____ secretary
_____ beginning engineer
_____ beauty operator
_____ journeyman printer
_____ experienced draftsman
_____ auto mechanic
_____ airline hostess
_____ factory worker

a. less than $10,000 per year
b. $10,000 - $15,000 per year
c. $15,000 - $25,000 per year
d. over $25,000

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PROJECT CVIS

Evaluation Questionnaire

School Attending:

____ College of DuPage

____ Naperville High

____ Willowbrook High

____ York High

Student's Name_____

Year in School: 9 10 11 12 13 14
(Circle one)

Sex: M F (Circle)

GENERAL QUESTIONS FOR EVERYBODY:

1. What is your general reaction to using a computer to receive guidance information? Please mark (x) one of the following:

____ a. I like it very much.

____ b. It was mostly pleasant.

____ c. It was mostly unpleasant.

____ d. I dislike it very much.

2. If you chose a or b above: What did you like about it? Mark as many answers as you wish:

____ a. Speed

____ b. Personal touch of the scripts

____ c. Good information

____ d. Things I learned about myself

____ e. Organized approach

____ f. Relating my ability and grades to decisions

____ g. Impartiality of the computer

____ h. Fun experience

____ i. Other. Please explain: _____

If you chose c or d above: What did you dislike about it? Mark as many answers as you wish:

____ a. Coldness, impersonality

____ b. Not enough chance to "talk" back

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____ c. Machine didn't work

____ d. Information was boring

____ e. Didn't learn anything new

____ f. Computer didn't make decisions for me

____ g. System didn't have the information I wanted

____ h. Didn't like the messages I received

____ i. Other. Please explain: _____

FOR THOSE WHO EXPLORED OCCUPATIONS

1. Did you have a definite occupation in mind when you came in to use CVIS today?

____ a. Yes

____ b. No

2. If your answer to the above question was "yes": What is your present thinking?

____ a. I haven't changed my choice.

____ b. I've received some new ideas for exploration of other occupations.

____ c. I'm thoroughly confused now.

____ d. I've tentatively chosen another occupation.

If your answer to the above question was "no": Which of the following best describes the present state of your vocational planning?

____ a. I have made a tentative choice.

____ b. I have two or more occupations in mind which I will explore further.

____ c. I'm thoroughly confused now.

____ d. None of these. Explain: _____

3. Please list the occupations which you are now seriously considering (if any):

a. _____

b. _____

c. _____

d. _____

e. _____

4. How good a job did CVIS do in giving you sufficient information about such things as job duties, training requirements, employment outlook, etc?

____ a. Very good job

____ b. Fairly good job

____ c. Fairly poor job

____ d. Very poor job

5. How good a job did CVIS do in helping you relate your ability, grades, educational plans and/or interests to jobs?

____ a. Very good job

____ b. Fairly good job

____ c. Fairly poor job

____ d. Very poor job

FOR THOSE WHO EXPLORED FOUR-YEAR COLLEGES:

1. Did you have specific colleges in mind when you came to use CVIS today?

____ a. Yes

____ b. No

2. If your answer to the above question was "yes": Which is the present state of your college selection?

____ a. I still plan to apply to the college(s) I previously had in mind.

____ b. I have one or more additional colleges in mind now.

____ c. I am confused now

____ d. I have made a new college selection.

If your answer to the above question was "no": Which is the present state of your college selection?

____ a. I have one or more colleges in mind now.

____ b. I am confused

____ c. I have made a definite selection

3. Please comment on the value of the ten informational scripts.

____ a. I didn't use any of them

____ b. The ones I used were very helpful

____ c. The ones I used were somewhat helpful

____ d. The information was not helpful at all.

4. Please comment on the seven characteristics (major, size, cost, etc.) used for college selection:

____ a. This division of characteristics is useful and understandable.

____ b. This division of characteristics is confusing and difficult to use.

____ c. I am interested in other characteristics besides these.

5. How good a job did CVIS do in providing specific information about colleges? (Size, costs, location, etc.)

____ a. Very good job

____ b. Fairly good job

____ c. Fairly poor job

____ d. Very poor job

FOR THOSE WHO USED COLLEGE OF DUPAGE SCRIPT:

1. How good a job did CVIS do in giving you the information you were seeking about College of DuPage?

____ a. Very good job

____ b. Fairly good job

____ c. Fairly poor job

____ d. Very poor job

2. What other information were you seeking that you did not find? Mark (x) as many answers as you wish.

____ a. None

____ b. Admission policies

____ c. Costs

____ d. Student activities

____ e. Counseling services

____ f. Financial aids

____ g. Other. Please explain: _____

FOR THOSE WHO USED SPECIALIZED AND TECHNICAL SCHOOL SCRIPT:

1. How good a job did CVIS do in giving you general information about technical and specialized schools?

____ a. Very good job

____ b. Fairly good job

____ c. Fairly poor job

____ d. Very poor job

2. How good a job did CVIS do in helping you select a specialized or technical school?

____ a. Very good job

____ b. Fairly good job

____ c. Fairly poor job

____ d. Very poor job

3. Please comment about the value of the information about specific technical and specialized schools:

____ a. The information was very valuable.

____ b. The information was somewhat helpful.

____ c. The information was of no value.

____ d. I did not use this part of the program.

FOR THOSE WHO USED THE APPRENTICESHIP SCRIPT:

1. How good a job did CVIS do in helping you to learn about apprenticeships?

____ a. Very good job

____ b. Fairly good job

____ c. Fairly poor job

____ d. Very poor job

FOR THOSE WHO USED THE MILITARY SCRIPT:

1. How good a job did CVIS do in helping you learn about military obligations and selective service?

   ____ a. Very good job

   ____ b. Fairly good job

   ____ c. Fairly poor job

   ____ d. Very poor job

WILLOWBROOK HIGH SCHOOL GUIDANCE DEPARTMENT *

Questionnaire for students who have used CVIS

NAME _____ YEAR IN SCHOOL 9 10 11 12 DATE _____
(Please circle)

The following questions are being asked in order to find out how valuable Project CVIS has been to you and to help us improve it for you and others. We appreciate your time in answering these questions:

I. IF YOU USED OCCUPATIONAL EXPLORATION TODAY:

1. Did you learn anything about yourself from using the computer?

   Yes _____ No _____ Don't Know _____ If yes, please

   explain _____

2. Did you learn anything new about occupations?

   Yes _____ No _____ Don't Know _____ If yes, please

   explain _____

3. If you received a list of occupations today, did it give you some new ideas which you had not had before?

   Yes _____ No _____ Don't Know _____ If yes, please

   explain _____

4. Will you explore these further? Yes _____ No _____ Don't Know_____

   How? - Counselor _____ Computer _____ Vocational Library _____

   Other _____ Please explain _____

5. Were you looking for some occupations which you did not find in our beginning selections?

   Yes _____ No _____ If yes, which ones? _____

6. Were the occupational briefs informative? Yes _____ No _____

   Were they interestingly written? Yes _____ No _____

   Do you have some suggestions for improving the occupational briefs? _____

7. What suggestions do you have for change or addition to this experience? _____

   _____

* Developed by the Willowbrook CVIS team

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II. IF YOU USED FOUR YEAR COLLEGE SCRIPTS TODAY:

1. Did you go through any of the 10 informational (teaching) scripts today? Yes _____ No _____ If yes, what did you think of the material presented? _____

2. Did the "college planning and selection" script help you to get a beginning list of colleges to consider? Yes _____ No _____

Comments: _____

3. Do you think that you will apply to one or some of the colleges on this list? Yes _____ No _____ Comments: _____

_____

4. What suggestions do you have for changing or adding to the four-year college material? _____

_____

III. IF YOU USED APPRENTICESHIP SCRIPT TODAY:

1. Do you feel that you learned something you didn't already know about apprenticeships? Yes _____ No _____

Comments: _____

_____

2. What suggestions do you have for change or additions to this script? _____

_____

IV. FOR EVERYBODY:

1. What was your reaction to "machine counseling"? _____

2. What did you like about it? _____

3. What did you dislike about it? _____

4. Was the "conversation" with the computer interesting? Yes _____ No _____ Do you have some suggestions for improving it? _____

_____

Please make any comments about today's use of the computer which would help us know how you feel about CVIS. _____

_____

PROJECT CVIS QUESTIONNAIRE *

Glen Crest Junior High

DATE _____ NAME _____

1. Did you have any difficulty using the CVIS program?

____ Yes

____ No

If your answer was "yes", please tell us why:

____ a. The directions were not clear.

____ b. The computer didn't work.

____ c. Other Please explain: _____

_____

2. Did you have difficulty understanding the words used in the program?

____ a. No difficulty

____ b. A little difficulty

____ c. A lot of trouble

3. Did you learn anything about yourself by using the CVIS program?

____ No

____ Yes

If your answer was "yes", please tell us what you learned. You may mark more than one thing:

____ a. My grades

____ b. My ability to learn

____ c. Something about the kind of person I am

____ d. Other Please explain: _____

4. By using the computer terminal and the pictures, did you find a similarity between yourself and any of the "types" of young people described?

____ No

____ Yes

* Developed by the Willowbrook CVIS team for use at Glen Crest Junior High, experimental site for development and testing of junior high subsystem.

5. What is your reaction to using a computer terminal to get information about yourself and occupations?

____ a. I liked it very much

____ b. It was OK

____ c. It wasn't pleasant

____ d. I disliked it very much

____ e. Other Please explain: _____

6. What is your reaction to the pictures and the tape recordings?

____ a. I liked them very much

____ b. They were OK

____ c. I didn't like them very well

____ d. I disliked them very much

____ e. Other Please explain: _____

7. Make any comments about the CVIS program that you would like to:

_____

_____

_____

PROJECT CVIS

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EVALUATION QUESTIONNAIRE *

IN THE BOXES, ENTER THE NUMBER OF THE BEST ANSWER FOR EACH QUESTION

COMPLETE ALL OF PART A AND ANY OF THE OTHER PARTS WHICH APPLY

PART A ANSWER ALL QUESTIONS IN THIS PART

1. What is your present grade? (1) 9th (2) 10th (3) 11th (4) 12th (5) Not in school
2. What is your sex? (1) Female (2) Male
3. How many times have you used CVIS? (1) One (2) Two (3) Three (4) Four (5) Five or more
4. What is the TOTAL number of minutes you have spent using CVIS? (1) 0-30 (2) 30-60 (3) 60-90 (4) 90+
5. Did you have enough time to explore your interests? (1) Yes (2) No
6. How would you rate the computer? (1) Very fast (2) Fast (3) Medium (5) Very slow
7. Did you feel the program was (1) Personal (2) Neutral (3) Impersonal
8. How would you rate the quality of information? (1) Very good (2) Good (3) OK (4) Poor (5) Very Poor
9. Did you feel that the computer has technical problems? (1) Many (2) Some (3) Few (4) None
10. How much did you learn about yourself? (1) Much (2) Some (3) Little (4) Nothing
11. How much did you learn about occupations? (1) Much (2) Some (3) Little (4) Nothing
12. How much information did the system have that you wanted? (1) Much (2) Some (3) Little (4) None
13. How much fun did you have? (1) Much (2) Some (3) Little (4) Nothing
14. Did you feel that the information was (1) Very Interesting (2) Interesting (3) OK (4) Boring (5) Very Boring
15. The organized approach of the computer was (1) Very helpful (2) Helpful (3) Didn't matter (4) Annoying
16. The neutral approach of the computer was (1) Very good (2) Good (3) Didn't matter (4) Bad (5) Very bad
17. Did the computer do a good job relating your ability and grades to decisions? (1) Yes (2) No
18. The messages you received were (1) Good (2) Good and bad (3) Bad
19. The fact that the computer made no decisions for you was (1) Good (2) Didn't matter (3) Bad
20. Would you recommend CVIS to a friend? (1) Very strongly (2) Yes (3) Maybe (4) No (5) Definitely not
21. Would you be interested in CVIS next year? (1) Very Interested (2) Yes (3) Maybe (4) No (5) Would avoid
22. Has CVIS increased your interest in seeing your counselor? (1) yes (2) No
23. What is the main reason you used CVIS? (1) Your choice (2) Required (3) Counselor recommended (4) Friends did

GO ON TO PART B

PART B IF YOU USED OCCUPATIONS SECTION, ANSWER ALL QUESTIONS IN PART B - IF YOU DID NOT USE OCCUPATION SECTION, GO TO PART C

24. Did you have a definite occupation in mind before using CVIS? (1) Yes (2) No
25. If you had an occupation in mind, is your choice still the same? (1) Yes (2) No (3) Does not apply
26. If you did NOT have an occupation in mind, do you now? (1) Yes (2) No (3) Does not apply
27. How do you now feel about your understanding of occupations? (1) Less confused (2) About the same (3) More confused
28. How many new ideas about occupations has CVIS given you? (1) Many (2) Some (3) Few (4) None
29. How many occupations are you now interested in exploring? (1) One (2) Two (3) Three + (4) None
30. Did CVIS give you enough information about job duties? (1) Yes (2) No
31. Did CVIS give you enough information about training requirements? (1) Yes (2) No
32. Did CVIS give you enough information about employment outlook? (1) Yes (2) No
33. Did CVIS help you relate your ability, grades, interests, and plans to jobs? (1) Yes (2) No

GO TO PART C

PART C IF YOU USED THE 4-YEAR COLLEGE SECTION, ANSWER QUESTIONS IN PART C - IF YOU DID NOT USE COLLEGE SECTION, GO TO PART D

34. How valuable were the 10 informational sections (How to apply, etc.)? (1) Very (2) Helpful (3) Useless (4) Didn't use
35. Did you have a specific college in mind before using CVIS? (1) Yes (2) No
36. If you had a college in mind, are you still planning to apply to that one? (1) Yes (2) No

* Prepared by Joint County School System, Cedar Rapids, Iowa

GO ON TO NEXT PAGE

CONTINUED

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39. If you did NOT have a college in mind, do you now? (1) Yes (2) No

40. How do you now feel about choosing and applying to colleges? (1) Less confused (2) About the same (3) More confused

41. How many new ideas about colleges has CVIS given you? (1) Many (2) Some (3) Few (4) None

42. How many colleges are you now interested in? (1) One (2) Two (3) Three (4) Four + (5) None

43. How valuable were the 7 characteristics (size, cost, etc.) for selection? (1) Very (2) Helpful (3) Useless (4) Didn't use

44. Would you have liked to see other descriptive characteristics besides these 7? (1) Yes (2) No

45. How good a job did CVIS do in providing specific information about colleges? (1) Very good (2) Good (3) Poor (4) Very poor

GO ON TO PART D

PART D IF YOU USED THE 2-YEAR COLLEGE SECTION, ANSWER QUESTIONS IN PART D - IF YOU DID NOT USE 2-YEAR COLLEGE SE GO TO PART E

46. Did you have a specific community college in mind before using CVIS? (1) Yes (2) No

47. If you had a community college in mind, are you still planning to do to that one? (1) Yes (2) No

48. If you did NOT have a community college in mind, do you now? (1) Yes (2) No

49. How many community colleges are you now interested in? (1) One (2) Two (3) Three or more (4) None

50. How good a job did CVIS do in providing information about community colleges? (1) Very good (2) Good (3) Poor (4) Very poor

51. How many community colleges did you inquire about? (1) Only Kirkwood (2) Kirkwood + 1 (3) Kirkwood + 2 (4) other than Kirkwood -

GO ON TO PART E

PART E IF YOU USED THE TECHNICAL AND SPECIALIZED SCHOOL SECTION, ANSWER QUESTIONS IN PART E - OTHERWISE GO TO PA

52. How good a job did CVIS do in giving you general information about technical and specialized schools? (1) Very good (2) Good (3) Poor (4) Very poor

53. How good a job did CVIS do in helping you select a specialized or technical school? (1) Very good (2) Good (3) Poor (4) Very poor

54. How valuable was the information about SPECIFIC technical and specialized schools? (1) Valuable (2) Helpful (3) No value (4) Didn't use

PART F IF YOU USED THE APPRENTICESHIP SECTION, ANSWER QUESTIONS IN PART F - OTHERWISE GO TO PART G

55. How good a job did CVIS do in helping you learn about apprenticeship programs? (1) Very good (2) Good (3) Poor (4) Very poor

56. How valuable was the quiz on apprenticeship? (1) Very valuable (2) Helpful (3) No value (4) Didn't use

57. How many programs that interested you were included in the material? (1) All (2) Most (3) Some (4) Few (5) None

58. Was there enough information about each apprenticeship program? (1) Yes (2) For some (3) No

PART G IF YOU USED THE EMPLOYMENT AFTER HIGH SCHOOL SECTION, ANSWER QUESTIONS IN PART G - OTHERWISE GO TO PAR

59. How good a job did CVIS do in helping you learn about employment opportunities after high school? (1) Very good (2) Good (3) Poor (4) Very poor

60. How valuable was the section on "How to find your first job"? (1) Very valuable (2) Helpful (3) No value (4) Didn't use

61. How much did you learn about job interviews? (1) Much (2) Some (3) Little (4) Nothing (5) Didn't use

62. Did you find the job selection game interesting? (1) Yes (2) No (3) Didn't use

63. How many new things have you learned to think about when choosing a job? (1) Many (2) Some (3) Few (4) None

PART H ANSWER QUESTION 62 ONLY IF YOU USED THE MILITARY INFORMATION SECTION

64. How good a job did CVIS do in helping you learn about military obligations and selective service? (1) Very good (2) Good (3) Poor (4) Very poor

PLEASE USE THIS SPACE TO MAKE ANY COMMENTS YOU WISH; NOTE WHAT YOU LIKED AND WHAT YOU FELT WAS MISSING.

American Institutes for Research
Youth Development Research Program

OMB No. 51-S 72061
Approval Expires: 6-30-73

Counseling, Guidance, and Placement Assessment Project

INTERVIEW GUIDE *

Part B. Students

PROGRAM TITLE: _____

PROGRAM DIRECTOR: _____

SCHOOL ADDRESS: _____
(Street)

_____
(City or Town) (State) (Zip)

Name of Interviewer	Date of Interview

SPECIAL INSTRUCTIONS:

The Program Director will furnish a roster of the names of all the students in the program. From this list, the interview team will randomly select the names of 15 students. Ten of these students will be interviewed, while five of them will make up a reserve pool. Students from this reserve pool will be selected for interviews in the event that one or more of the ten students are absent from school on the day of the interview.

Topics	Pages
Interviewer's Introductory Statement	2
Interviewee Information Sheet	3
SECTION ONE	
Needs Assessment	4 - 5
Program Objectives and Evaluation	6 - 17
Program Transportability	18
SECTION TWO	
Questions from Interview Guide, Part A	19
SECTION THREE	
Student's General Reactions	20

* **Developed by American Institutes for Research, Palo Alto, California, for use in an on-site review of the project under contract with the United States Office of Education.**

FOR INTERVIEWER ONLY

Statement to be Made by the Interviewer at the Beginning of the Interview

Hello! I'm from Palo Alto, California, and I work at the American Institutes For Research. The United States Office of Education has asked us to visit some schools across the country to find out about the kind of career counseling and guidance students are getting. I have some questions I would like to ask you about the _____ _____. *Shall we begin?*

(title of program)

INTERVIEWEE INFORMATION SHEET

Name: _____

Grade: _____

Sex: _____ Age: _____

Ethnic Group: (Interviewer identifies)

____ 1. White

____ 2. Black

____ 3. Spanish surname (Chicano, Mexican-American, Latino, Puerto Rican)

____ 4. Native American (American Indian)

____ 5. Asian

____ 6. Other (specify)

What goal, or goals, do you have for what you want to do after high school? (probe, if necessary.)

____ 1. College-bound--will work on at least a baccalaureate degree

____ 2. Noncollege-bound--but will attend a two-year (terminal) college program, trade school, vocational or technical program

____ 3. Noncollege-bound--will take a job after leaving your program

____ 4. Noncollege-bound--will marry and keep house (will not work or obtain further education or training)

____ 5. Noncollege-bound--will enlist in the Armed Forces

____ 6. Noncollege-bound--will travel

____ 7. Noncollege-bound--has indefinite future goals, if any

____ 8. Other (specify)

_____

_____

_____

How long have you been involved in the _____?
(title of program)

NEEDS ASSESSMENT

1. When you began the program, were attempts made to find out what you needed the most in the way of planning and progressing toward your goals in life; particularly those having to do with your plans for education, and for first and later jobs and how you put all those things together as a career? (Check one)

   _____ A. No (Go on to Question #2)

   _____ B. Don't know (Go on to Question #2)

   _____ C. Yes (Continue below)

   If Yes, describe the procedures used and what was done with the results.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Use additional pages as necessary)

2. Describe below your first contacts with the program.

3. Since your initial contact with the program, have you been involved in any special program-related activities? (For example, meeting in groups to learn about career planning, seeing a film about occupations, or going on a field trip to a business or industry).

_____A. No. (Go on to page 7.)

_____B. Yes. (Continue below.)

If "Yes," describe below what you have done in these activities.

PROGRAM OBJECTIVES AND EVALUATION

1. Do you know what your goals are in this program? (Check one.)

   _____A. No. (Go on to Question #2)

   _____B. Yes. (Continue below.)

   If "Yes," list them _____

   _____

   _____

   _____

   _____

2. Have attempts been made in this program to find out if you have made progress in planning and working toward your educational, job, career, and life goals? (Check one.)

   _____A. No. (Go on to Question #4)

   _____B. Don't know. (Go on to Question #4)

   _____C. Yes. (Continue below.)

   If "Yes," describe the procedures used, who did them, and what was done with the results.

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

(Use additional sheets as necessary)

3. Have these procedures helped you? (Check one.)

_____A. No. (Continue below.)

_____B. Don't know. (Go on to Question #4)

_____C. Yes. (Continue below.)

a. If "Yes," describe how. _____

b. If "No," state why not. _____

(Use additional sheets as necessary)

4. How many hours per week do you spend in the program? _____

5. Describe what you do during a typical day in this program. For example:

   a. Describe how you begin your day's activities (e.g., on a job, talking with counselor, etc.).

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   b. Tell what you do in the program (e.g., work, discuss, read, etc.).

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   c. List the adults you have contact with inside and outside the school, and the kinds of help you get from each.

   _____

   _____

   _____

d. If they do so, describe the ways that students work together on program activities.

e. Explain how the teacher or counselor lets you know about the progress you make toward your objectives (e.g., by informal oral reports, grades, tests, etc.).

6. Has this program helped you in particular? (Check one.)

_____A. No. (Continue below.)

_____B. Don't know. (Go on to question #7.)

_____C. Yes. (Continue below.)

a. If "Yes," describe what it has helped you to do. _____

State what parts of the program (activities, adults, materials, other students, etc.) have contributed the most to your achievements. (Follow up on each part mentioned to provide a clear sense of what kind of, and how, help occurred.)

(Use additional sheets as necessary)

b. If "No," why not? _____

What parts of the program have held you back from doing better (activities, adults, other students, materials, etc.)? (Follow up on each part mentioned to provide a clear sense of what kind of, and how, help occurred.)

(Use additional sheets as necessary)

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7. Effective Incident

Can you recall an incident in which you or a fellow student were especially helped by the program?

_____ A. No (Go on to Question #8.)

_____ B. Yes (Continue below)

If Yes, report that incident by providing the following types of information about it.

a. Behavior involved:

b. When did the incident occur (approximate date)?

c. What occurred?

(Use additional sheets as necessary)

d. What were the positive outcomes of this incident?

e. Why do you think the help was particularly effective?

f. Since the beginning of the program, how frequently have you observed incidents of this type?

_____ 5 or less a month

_____ 6-10 a month

_____ 11-15 a month

_____ 16-20 a month

_____ more than 20 a month

(Use additional sheets as necessary)

8. Ineffective Incident

Can you recall an incident in which you or a fellow student were not helped by the program when you expected to be?

_____ A. No (Go on to Question 9)

_____ B. Yes (Continue below)

If Yes, report that incident by providing the following types of information about it.

a. Behavior involved:

b. When did the incident occur (approximate date)?

c. What occurred?

d. What were the negative outcomes of this incident?

e. Why do you think the program was particularly ineffective?

f. Since the beginning of the program, how frequently have you observed incidents of this type?

_____ 5 or less a month

_____ 6-10 a month

_____ 11-15 a month

_____ 16-20 a month

_____ more than 20 a month

(Use additional sheets as necessary)

9. Have counselors in this program been helpful in bringing practical career information and services to you?

_____A. No. (Go on to Question #10.)

_____B. Yes. (Continue below.)

If "Yes," describe what they have done that has especially helped you:

_____

_____

_____

_____

_____

_____

_____

10. Have teachers in this program been helpful in bringing practical career information and services to you?

_____A. No. (Go on to Question #11.)

_____B. Yes. (Continue below.)

If "Yes," describe what they have done that has especially helped you:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Use additional sheets as necessary)

Have adults other than counselors or teachers (for example, persons with work experience in fields other than education) been helpful in bringing practical career information and services to you?

____A. No. (Go on to Question #12.)

____B. Yes. (Continue below.)

If "Yes," describe what they have done that has especially helped you: who ads.

Do you and the other students in the program receive help in finding jobs?

(Use additional sheets as necessary)

PROGRAM TRANSPORTABILITY

1. Would this program help other students similar to you in your school?

_____ A. No (Continue below)

_____ B. Don't Know (Go on to Section Two)

_____ C. Yes (Continue below)

a. If Yes, describe those students it would especially help.

_____

_____

_____

_____

_____

_____

_____

b. If No, why not? _____

_____

_____

_____

_____

_____

_____

_____

(Use additional sheets as necessary)

SECTION TWO

QUESTIONS FROM INTERVIEW GUIDE, PART A

Post here any questions from Interview Guide, Part A, and record answers to them which you get during the interview.

Questions	Answers

(Use additional sheets as necessary)

SECTION THREE

STUDENT'S GENERAL REACTIONS

Ask the student for any general reactions he cares to add regarding the program. If he has not had opportunity to describe strengths and weaknesses of this program, he should be encouraged to do so in this section. He should also be asked for his suggestions of ways this program might be improved.

(Use additional sheets as necessary)

QUESTIONNAIRE TO SAMPLE THE REACTION OF STUDENT NON-USERS

SURVEY OF NON-USERS OF CVIS *

You have been identified as a student who has not made extensive use of the "Computerized Vocational Information System" (CVIS) that is presently operating in your school. In order to improve the capability of the system, we would like to ask you the following questions. Please feel free to answer all the questions. This is not an exam, nor will it be used for any other purpose than to provide us information on how we might better provide this service to all students.

1. Have you decided what you might want to do after you complete high school? Yes _____ No _____

2. How often do you meet with your counselor?
   _____ Once a year
   _____ Two to three times a year
   _____ Four to six times a year
   _____ More than six times a year

3. Has your counselor ever encouraged you to use CVIS?
   Yes _____ No _____

4. Are you aware that CVIS is operating in your school?
   Yes _____ No _____

5. If yes, how did you find out about CVIS?
   _____ Counselor
   _____ Teacher
   _____ Some students who have used it
   _____ Some students who didn't use it but heard about it
   _____ I saw a notice on a bulletin board
   _____ I heard about it from another source (please explain)
   _____
   _____

6. Why have you not made use of the system more extensively?
   _____ I don't know what CVIS is or does.
   _____ Since I know what I want to do after high school, I don't need to use it.
   _____ I don't have the time to use it.
   _____ I tried once, but the machine was broken, so I've never tried again.
   _____ My friends told me it was a waste of time.
   _____ If a different reason from above, please explain.
   _____
   _____
   _____.

NOTE: Besides the information that would be gathered from this instrument, variables such as sex, ethnic background, grade level, and rank in class/grade point average would be needed to complete the profile. With such a combined profile of non-users, one could determine whether there is a systematic bias on the part of non-users and hopefully improve the capability of the system.

* Contributed by Dr. Merle Strong, University of Wisconsin, used in evaluation of Rockford Project.

COUNSELOR QUESTIONNAIRES

COUNSELOR PROCESS INVENTORY (CPI) *

Counselor name_____ Client name_____

Has client previously worked with CVIS? Yes_____ No _____

Provide the estimated percentage of time spent in each of the following counseling activities with this client.

1. _____ Gave information about college
2. _____ Clarified student interests
3. _____ Clarified student abilities
4. _____ Helped student clarify his objectives
5. _____ Helped student assess subjective probabilities of alternatives and utility of outcomes
6. _____ Gave information about occupations
7. _____ Used tests or other data to help student understand himself
8. _____ Helped in decision-making process
9. _____ Referred client to printed information or community resources
10. _____ Other (explain) _____
_____
_____

11. _____ Strongly Agree
_____ Agree
_____ ? 11. The student was primarily information-seeking.
_____ Disagree
_____ Strongly Disagree

100% Total

Note: Question 1-10 might be replaced by asking "What proportion of time was spent in straight information giving"

* Contributed by Dr. Mary Lee Smith, University of Colorado. Used in evaluation of CVIS installation at Boulder Valley Schools.

CVIS QUESTIONNAIRE FOR GUIDANCE COUNSELORS *

Trailer at School: From _____ to _____ Present Date _____
(Dates)

Please circle the letter of the answer which best describes your opinion of the following:

1. The scope of the students' interest was broadened by CVIS.

   a. Very much b. Somewhat c. Very little d. Don't know

2. Through CVIS, the students gained "in depth" information in their area of interest.

   a. Very much b. Somewhat c. Very little d. Don't know

3. Students who benefited most by CVIS were those interested in

   a. College b. Vocational c. Military d. Don't know

4. Because of CVIS, students have a more realistic outlook on their career opportunities.

   a. Very much b. Somewhat c. Very little d. Don't know

5. The information gained by the student through CVIS is relevant (up-to-date, meaningful) to the current situation.

   a. Very much b. Somewhat c. Very little d. Don't know

6. Students' over-all reaction to CVIS is

   a. Favorable b. Mixed c. Indifferent d. Unfavorable e. Not known

7. Students' overall reaction to using a computer to get information is

   a. Favorable b. Mixed c. Indifferent d. Unfavorable e. Not known

8. Student-counselor contacts (after CVIS)

   a. Increased b. Decreased c. Remained the same

* Used in evaluation of CVIS, Joint County School System, Cedar Rapids, Iowa

9. What effect did CVIS have in generating an interest in careers? Interest, for the most part,

   a. Increased b. Decreased c. Remained about the same d. Don't know

10. Student-counselor contacts (after CVIS) involved mostly students who

    a. Had never had a vocational counseling interview
    b. Had been in before for a vocational counseling interview

11. Is CVIS a worthwhile aid to counselors in providing information to students?

    a. Very much b. Some c. Very little

12. Would you like to have the CVIS trailer return to your school on a regular basis?

    a. Yes b. No

    Why or why not?_____

_____

_____

Other comments?_____

_____

_____

_____

WILLOWBROOK HIGH SCHOOL

PROJECT CVIS EVALUATION FORM *

The following questiona are being asked in order to provide an evaluation of the CVIS System by counselors for the North Central evaluation committee.

STUDENT USE OF THE SYSTEM

1. Are you receiving any feedback from students about their use of the CVIS system? _____ If so, what kind? _____

_____

2. What has been the effect upon you of having a computerized information system (for students) in the guidance department? (For example: Has it saved you time? Do students come to you with more precise questions?) _____

_____

_____

3. What do you believe the effect of the use of the CVIS program is on students' general career development? _____

_____

_____

4. Do you feel that the CVIS system has been adequately absorbed into the Guidance Department? (For example: Is the computer doing functions which counselors should do? Is CVIS providing complementary and supportive service to the counselors or vice-versa? Should the system be stand-alone or integrally related to the counselor's functions?) _____

_____

_____

_____

_____

* Developed by Willowbrook CVIS team to gather data for North Central Evaluation.

ADMINISTRATIVE & COUNSELOR USE OF THE SYSTEM

1. What has been the effect of the counselor-administrative functions (scheduling, schedule changing, attendance records, student records) on your role as counselor? (For example: Has it changed your role? Have they made your work more or less efficient? Have they added additional clerical work?) _____

_____

_____

_____

2. Please rate the degree of your use of the following:

	1 Not at all	2 Seldom	3 Often
a. Display of student test information			
b. Display of personal data			
c. Display of personality ratings			
d. Display of attendance records			
e. Display of grades			
f. Display of master schedule			
g. Display of student schedule			
h. Making a schedule change			
i. Recall of the record of a student's use of the various branches of the system			
j. Display of last 10 occupations explored by students			
k. Information about occupations			
l. Information about colleges			
m. Information about technical-specialized schools			
n. Information about local companies			
o. Information about financial aids			

ADMINISTRATIVE & COUNSELOR USES OF THE SYSTEM CONTD.

3. How do you integrate "Select-A-Course" in your registration procedure?

Please check your preference:

_____ I prefer registering all my students myself

_____ I prefer having the students register by "Select-A-Course" but conferring personally with those who may need counselor assistance.

_____ I prefer all students to register by "Select-A-Course"

GENERAL

What would you change, add, or delete from the CVIS program or equipment to improve its use? _____

_____

_____

_____

_____

Willowbrook High School

CVIS Counselor Questionnaire *

1. Do you think that CVIS does stimulate students to explore occupations? _____

   If yes, why? _____
   If no, why not? _____

2. Do you feel that the present criteria (rank in class, ability as measured by tests, interests, educational plans) used in channeling students' exploration are valid and useful criteria? _____

   Please add any additional comments you wish: _____

   _____

3. Are you receiving any feedback from students about their use of CVIS? _____

   If so, what kind? _____

4. Do you feel that CVIS is causing students to "consume" more vocational information than previously? Yes _____ No _____ I don't know _____

5. Based on what you have been able to read or see of our six new scripts, what do you anticipate that their usefulness to students will be?

	No value at all	Minimal Value	Valuable	Very Valuable	Extremely Valuable
a. Four year college (teaching scripts, selection, and information about specific colleges)	1	2	3	4	5
b. College of DuPage script	1	2	3	4	5
c. Technical and specialized schools script	1	2	3	4	5
d. Apprenticeships script	1	2	3	4	5
e. Jobs in local companies	1	2	3	4	5
f. Military information	1	2	3	4	5

6. Do you feel that functions which should be reserved for human counselors are being delegated to a machine? _____

   Please react further _____

   _____

* Developed by Willowbrook CVIS Team

7. What suggestions do you have for improvement, modification, and/or expansion of student CVIS program? _____

_____

8. Approximately how many times per day do you use computerized student records? ____
Paper permanent records (your copies of them, report cards or other sources of the same information?) _____
Comments: _____

_____

9. Rate the following counselor functions on the usefulness you anticipate when Programs are functioning smoothly:

		Will not use at all	Will use seldom	Will use Moderately	Will use a great deal	Will rely on it in interviews
a.	Student records	1	2	3	4	5
b.	Student schedules	1	2	3	4	5
c.	On-line schedule changes	1	2	3	4	5
d.	On-line entry of subject requests	1	2	3	4	5
e.	Job definitions (50 word ones)	1	2	3	4	5
f.	Long job descriptions	1	2	3	4	5
g.	Summary of college decisions of counselees	1	2	3	4	5
h.	Summary of information about specific colleges	1	2	3	4	5
i.	Summary of programs at College of DuPage	1	2	3	4	5
j.	Summary of information about technical and specialized schools	1	2	3	4	5

10. What are your positive comments about CVIS (student and counselor use)? _____

a. _____
b. _____
c. _____

11. What are your negative comments about CVIS?

a. _____
b. _____
c. _____

12. Has the system saved any time for you? Yes _____ No _____

If yes, how? _____

_____

_____

13. What are your suggestions for improving and/or expanding present counselor programs? _____

_____

_____

_____

American Institutes for Research
Youth Development Research Program

OMB No. 51-S 72061
Approval Expires: 6-30-73

Counseling, Guidance, and Placement Assessment Project

INTERVIEW GUIDE *

Part C. Counselors

PROGRAM TITLE: _____

PROGRAM DIRECTOR: _____

SCHOOL ADDRESS: _____
(Street)

_____
(City or Town) (State) (Zip)

Name of Interviewer	Date of Interview

SPECIAL INSTRUCTIONS:

The program director, as a result of pre-site visit planning with AIR project staff, will furnish the names of four counselors; two who have direct involvement in the program, and two who are not directly involved but who are knowledgeable about the program.

Topics	Pages
Interviewer's Introductory Statement	3
Interviewee Information Sheet	2
SECTION ONE	
Questions from Interview Guide, Part A	4
SECTION TWO	
Counselor's Observations of Effective and Ineffective Incidents, and on Program Realignment	5-11
SECTION THREE	
Counselor's General Reactions	12

* Developed by American Institutes for Research, Palo Alto, Ca., for use in an on-site review of the project under contract with the United States Office of Education.

FOR INTERVIEWER ONLY

Statement to be Made by the Interviewer at the Beginning of the Interview

Hello! I'm from Palo Alto, California, and I work at the American Institutes For Research. The United States Office of Education has asked us to visit some schools across the country to find out about the kind of career counseling and guidance students are getting. I have some questions I would like to ask you about the _____

_____. *Shall we begin?*
(title of program)

INTERVIEWEE INFORMATION SHEET

Name:_____

Sex:_____

Age:_____

Position: Title_____

Location:_____

Level: Professional_____

Paraprofessional_____

Certificate(s) held:_____

Number of years employed in district:_____

Number of years employed in program:_____

Ethnic Group: (Interviewer identifies)

_____1. White

_____2. Black

_____3. Spanish surname (Chicano, Mexican-American, Latino, Puerto Rican)

_____4. Native American (American Indian)

_____5. Asian

_____6. Other (specify)

SECTION ONE

QUESTIONS FROM INTERVIEW GUIDE, PART A

Post here any questions related to significant topics in Part A of the Interview Guide. For example, such topics might include III. Needs Assessment, IV. Program Objectives and Evaluation, and V. Program Staff. The purpose of asking these follow-up questions of the counselors is to confirm, or disconfirm, key statements of the program director as well as to augment information he provided.

Questions	Answers

(Use additional sheets if necessary)

SECTION TWO

COUNSELOR'S OBSERVATIONS OF EFFECTIVE AND INEFFECTIVE INCIDENTS

1. Effective Incident

Can you recall an incident in which the resources (including teacher/counselor assistance) and activities of this program were particularly effective in helping a student (or students) in the program to achieve a program objective (or objectives)?

_____ A. No (Go on to question 2)

_____ B. Yes (Continue below)

If yes, report that incident by providing the following types of information about it:

a. Behavior involved:

b. When did the incident occur (approximate date)?

c. What occurred?

(Use additional sheets if necessary)

d. What were the positive outcomes of this incident?

e. Why do you think the resources and activities were particularly effective?

f. Since the beginning of the program, how frequently have you observed incidents of this type?

_____ 5 or less a month

_____ 6-10 a month

_____ 11-15 a month

_____ 16-20 a month

_____ more than 20 a month

(Use additional sheets if necessary)

2. Ineffective Incident

Can you recall an incident in which the resources (including teacher/counselor assistance) and activities of this program were particularly ineffective in helping a student (or students) in the program to achieve a program objective (or objectives)?

_____ A. No (Go on to Section Four)

_____ B. Yes (Continue below)

If yes, report that incident by providing the following types of information about it.

a. Behavior involved:

b. When did the incident occur (approximate date)?

c. What occurred?

(Use additional sheets if necessary)

d. What were the negative outcomes of this incident?

e. Why do you think the resources and activities were particularly ineffective?

f. Since the beginning of the program, how frequently have you observed incidents of this type?

_____ 5 or less a month

_____ 6-10 a month

_____ 11-15 a month

_____ 16-20 a month

_____ more than 20 a month

(Use additional sheets if necessary)

3. Were you on the school staff prior to the beginning of this program?

_____A. No. (Go on to Question #4.)

_____B. Yes. (Continue below.)

If "Yes," answer this question: As a result of this program, have the duties of guidance counselors working in this program been changed from what was the case before your program began so that they can better provide noncollege-bound youth with career guidance, counseling, and placement services? (Check one.)

_____A. No. (Go on to Question #4.)

_____B. Don't know. (Go on to Question #4.)

_____C. Yes. (Continue below.)

a. If "Yes," list below the major changes that have been made in the activities of counselors. Wherever possible, give examples.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Use additional sheets as necessary)

b. List below the major changes that have been made in the activities of counselors to improve career guidance, especially for noncollege-bound women. Wherever possible give examples.

c. List below the major changes that have been made in the activities of counselors to improve career guidance, especially for noncollege-bound minority group youth. Wherever possible, give examples.

(Use additional pages if necessary)

4. As a result of this program, have materials been improved and better practices been brought about for providing noncollege-bound youth, in general, with career information and career planning assistance? (Check one)

_____A. No (Go on to section three)

_____B. Don't know (Go on to section three)

_____C. Yes (Continue below)

a. If "Yes," list below the major features of these new or improved materials and practices. Wherever possible, give examples.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

b. List below any knowledge you have that these resources are better than old approaches for providing noncollege-bound youth with this same type of assistance. Wherever possible, give examples.

_____

_____

_____

_____

_____

_____

_____

_____

(Use additional pages if necessary)

FOR INTERVIEWER ONLY

SECTION THREE

COUNSELOR'S GENERAL REACTIONS

Ask the counselor for any general reactions he cares to add regarding the program. If he has not had opportunity to describe strengths and weaknesses of this program, he should be encouraged to do so in this section. He should also be asked for his suggestions of ways this program might be improved.

(Use additional sheets if necessary)

ADMINISTRATIVE QUESTIONNAIRES

PROJECT CVIS

DIRECTOR SUMMARY SHEET (DSS)

Please give the information requested below as it relates to the month of_____

1. Describe the number of system breakdowns, the percentage of time the system has been down, and the nature of the technical problems.

2. What advisor committee meetings have been scheduled for the month? What training workshops are scheduled?

3. What new materials have been added to the system? Describe them and give their source.

(Over)

* Contributed by Dr. Mary Lee Smith, University of Colorado. Used in evaluation of CVIS installation at Boulder Valley Schools.

4. Describe any diffusion activities; e.g. visits by CDE personnel, non-member school personnel, community visitors, etc.

5. What efforts have been made either to inform or involve parents, community, teachers, etc. to CVIS?

6. Have any problems been noted in the implementation of CVIS in the counseling program? If so, please describe.

American Institutes for Research
Youth Development Research Program

OMB No. 51-S 72061

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Counseling, Guidance, and Placement Assessment Project

INTERVIEW GUIDE *

Part E. School or District Administrator

PROGRAM TITLE: _____

PROGRAM DIRECTOR: _____

SCHOOL ADDRESS: _____
(Street)

_____
(City or Town) (State) (Zip)

Name of Interviewer	Date of Interview

SPECIAL INSTRUCTIONS:

The program director is to have furnished the name of a school (principal or vice-principal) or district (assistant superintendent, etc.) administrator, whomever is the most knowledgeable about the various aspects of the project. The director will assist the interviewer in arranging an appointment for the interview that will be conducted with this administrator.

Topics	Pages
Interviewer's Introductory Statement	2
Interviewee Information Sheet	3
SECTION ONE	
Questions from Interview Guide, Part A	4
SECTION TWO	
Administrator's General Reactions	5

* Developed by American Institutes for Research, Palo Alto, California, for use in an on-site review of the project under contract with the United States Office of Education.

FOR INTERVIEWER ONLY

Statement to be Made by the Interviewer at the Beginning of the Interview

Hello! I'm from Palo Alto, California, and I work at the American Institutes For Research. The United States Office of Education has asked us to visit some schools across the country to find out about the kind of career counseling and guidance students are getting. I have some questions I would like to ask you about the _____ _____. *Shall we begin?*

(title of program)

FOR INTERVIEWER ONLY

SECTION TWO

ADMINISTRATOR'S GENERAL REACTIONS

Ask the administrator for any general reactions he cares to add regarding the program. If he has not had opportunity to describe strengths and weaknesses of this program, he should be encouraged to do so in this section. He should also be asked for his suggestions of ways this program might be improved. Particularly, ask the administrator about his general views on career guidance, counseling, and placement and on whether he thinks this program provides what is necessary.

(Use additional sheets as necessary)

INTERVIEWEE INFORMATION SHEET

Name: _____

Sex: _____

Age: _____

Position: Title: _____

Location: _____

Number of years employed in district _____

Ethnic Group: (Interviewer identifies)

_____ 1. White

_____ 2. Black

_____ 3. Spanish surname (Chicano, Mexican-American, Latino, Puerto Rican)

_____ 4. Native American (American Indian)

_____ 5. Asian

_____ 6. Other (specify)

SECTION ONE

QUESTIONS FROM INTERVIEW GUIDE, PART A

Post here any questions related to significant topics in Part A of the Interview Guide. For example, such topics might include I. Program Context, II. Target Sample and Population, and VI. Program Transportability. The purpose of asking these follow-up questions of the administrator is to confirm, or disconfirm, key statements of the program director as well as to augment information he provided.

Questions	Answers

(Use additional sheets if necessary)

TEACHER QUESTIONNAIRES

American Institutes for Research
Youth Development Research Program

OMB No. 51-S 72061
Approval Expires: 6-30-73

Counseling, Guidance, and Placement Assessment Project

INTERVIEW GUIDE *

Part D. Teachers

PROGRAM TITLE: _____

PROGRAM DIRECTOR: _____

SCHOOL ADDRESS: _____
(Street)

_____
(City or Town) (State) (Zip)

Name of Interviewer	Date of Inverview

SPECIAL INSTRUCTIONS:

The Program Director will furnish a roster of the names of all the teachers on the school staff. From the names of teachers identified by the Director as being directly involved in the program, the interview team will randomly select three; from the names of teachers identified as not being directly involved in the program, the interview team will randomly select three. Two teachers from each group will be interviewed, while the remaining ones will make up a reserve pool.

Topics	Pages
Interviewer's Introductory Statement	2
Interviewee Information Sheet	3
SECTION ONE	
Questions from Interview Guide, Part A	4
SECTION TWO	
Teacher's Observations of Effective and Ineffective Incidents	5-8
SECTION THREE	
Teacher's General Reactions	9

* Developed by American Institutes for Research, Palo Alto, California, for use in an on-site review of the project under contract with the United States Office of Education.

FOR INTERVIEWER ONLY

Statement to be Made by the Interviewer at the Beginning of the Interview

Hello! I'm from Palo Alto, California, and I work at the American Institutes For Research. The United States Office of Education has asked us to visit some schools across the country to find out about the kind of career counseling and guidance students are getting. I have some questions I would like to ask you about the _____ _____. *Shall we begin?*
(title of program)

INTERVIEWEE INFORMATION SHEET

Name: _____

Sex: _____

Age: _____

Position: Title _____

Location _____

Number of years employed in district: _____

Number of years employed in school: _____

Ethnic Group: (Interviewer identifies)

____ 1. White

____ 2. Black

____ 3. Spanish surname (Chicano, Mexican-American, Latino, Puerto Rican)

____ 4. Native American (American Indian)

____ 5. Asian

____ 6. Other (specify)

SECTION ONE

QUESTIONS FROM INTERVIEW GUIDE, PART A

Post here any questions related to significant topics in Part A of the Interview Guide. For example, such topics might include III. Needs Assessment, IV. Program Objectives and Evaluation, and V. Program Staff. The purpose of asking these follow-up questions of the teachers is to confirm, or disconfirm, key statements of the program director as well as to augment information he provided.

Questions	Answers

(Use additional sheets if necessary)

SECTION TWO

TEACHER'S OBSERVATIONS OF EFFECTIVE AND INEFFECTIVE INCIDENTS

1. Effective Incident

Can you recall an incident in which the resources (including teacher/counselor assistance) and activities of this program were particularly effective in helping a student (or students) in the program to achieve a program objective (or objectives)?

_____ A. No (Go on to question 2)

_____ B. Yes (Continue below)

If yes, report that incident by providing the following types of information about it:

a. Behavior involved:

b. When did the incident occur (approximate date)?

c. What occurred?

(Use additional sheets if necessary)

d. What were the positive outcomes of this incident?

e. Why do you think the resources and activities were particularly effective?

f. Since the beginning of the program, how frequently have you observed incidents of this type?

_____ 5 or less a month

_____ 6-10 a month

_____ 11-15 a month

_____ 16-20 a month

_____ more than 20 a month

(Use additional sheets if necessary)

2. Ineffective Incident

Can you recall an incident in which the resources (including teacher/counselor assistance) and activities of this program were particularly ineffective in helping a student (or students) in the program to achieve a program objective (or objectives)?

_____ A. No (Go on to Section Three)

_____ B. Yes (Continue below)

If yes, report that incident by providing the following types of information about it.

a. Behavior involved:

b. When did the incident occur (approximate date)?

c. What occurred?

(Use additional sheets if necessary)

d. What were the negative outcomes of this incident?

e. Why do you think the resources and activities were particularly ineffective?

f. Since the beginning of the program, how frequently have you observed incidents of this type?

_____ 5 or less a month

_____ 6-10 a month

_____ 11-15 a month

_____ 16-20 a month

_____ more than 20 a month

(Use additional sheets if necessary)

FOR INTERVIEWER ONLY

SECTION THREE

TEACHER'S GENERAL REACTIONS

Ask the teacher for any general reactions he cares to add regarding the program. If he has not had opportunity to describe strengths and weaknesses of this program, he should be encouraged to do so in this section He should also be asked for his suggestions of ways this program might be improved.

(Use additional sheets as necessary)

85A

PARENT QUESTIONNAIRE

(From ECES)

Educational and Career Exploration System

Questionnaire for Parents *

During the past year at school your 10th grade student has had the chance to use the Educational and Career Exploration System (ECES). To help us evaluate the worth of ECES we are asking both you and your student to fill out the enclosed questionnaire and mail it back to us. Your answers are confidential and no one at your student's school will see them. Please be as frank as you can; we value your answers since we want to make ECES useful to both students and parents.

Our student is: male _____ female _____.

Our student's school is _____.

Our student's name is _____.

Please fill this out and mail it as soon as you can, along with the one which your son or daughter filled out. Please use the enclosed envelope addressed to:

ECES Evaluation Study
Box 164
Teachers College
Columbia University
New York, N.Y. 10027

* Used by permission of Dr. Roger Myers, Teachers College, Columbia University.

ECES/DMS/72

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1. To what extent has your son or daughter discussed with you his or her use of ECES in exploring educational and career possibilities?

   1. Not at all.
   2. It was mentioned -but only briefly.
   3. There has been some discussion - but not much.
   4. There has been quite a lot of discussion at different times.
   5. We discuss it regularly.

   1. _____

2. Following are some of the activities which the ECES program involves. How much has your or daughter talked about these with you?

	Not at all	Occasionally	Frequently
1. Terminal visits on ECES.			
2. Print-outs from ECES computer.			
3. Individual conferences with counselors.			
4. Reading about occupations.			
5. Reading about schools to go to after high school.			
6. Assignments as part of the Decision Making Sessions.			
7. The group sessions on Decision Making.			

3. Do you feel that you have become more involved in your child's educational or vocational planning since his or her participation in the ECES program?

   1. Definitely have not.
   2. Probably have not.
   3. Probably have.
   4. Definitely have.

   3. _____

4. Read statements A through G below, then select 1 of the 5 possible answers that best indicates <u>how much help</u> you feel your son or daughter has received from the ECES program in each of the areas below:

   1. None at all.
   2. Hardly any help.
   3. Some - but not much help.
   4. A considerable amount of help.
   5. A great deal of help.

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4. contd.

A. Seeing connections between his or her high school experience and future plans. A. _____

B. Getting useful facts about the world of work. B. _____

C. Seeing connections between his or her <u>interests</u> and possible occupations. C. _____

D. Seeing connections between his or her <u>abilities</u> and possible occupations. D. _____

E. Discovering new occupational possiblities he or she might look into. E. _____

F. Discovering new educational possibilities he or she might look into. F. _____

G. Making good decisions about what to do after high school. G. _____

5. Do you feel your son or daughter is better able to make decisions about his or her career as a result of participating in the ECES program?

1. Definitely not.
2. Probably is not.
3. Probably is.
4. Definitely is.

5. _____

6. Read statements A through F below, then select 1 of the 5 possible answers that best indicates how active you have been in each of the areas below:

1. Not active at all.
2. Not very active.
3. Fairly active.
4. Very active.
5. Extremely active.

A. Helping your son or daughter find summer employment that related to career goals. A. _____

B. Meeting with a school guidance counselor to discuss your son's or daughter's situation and plans. B. _____

C. Making sure that your son or daughter was meeting with the counselor. C. _____

D. Encouraging your son or daughter to talk with individuals employed in careers he or she is considering. D. _____

E. Obtaining books, pamplets, or other educational and occupational information to assist your son or daughter to decide on future plans. E. _____

F. Obtaining private vocational testing and counseling for your son or daughter. F. _____

7. How far do you plan for your child to go in school?

Less than high school diploma or equivalent. _____

High school diploma or equivalent. _____

Post high school training other than Jr. college. _____

Jr. college graduation. _____

College graduation. _____

Graduate school. _____

8. How far did you go in school?

	Father	Mother
Less than high school diploma or equivalent.	_____	_____
High school diploma or equivalent.	_____	_____
Post-high school training other than Jr. college.	_____	_____
Jr. college graduate.	_____	_____
College graduate.	_____	_____
Graduate school.	_____	_____

9. What are your occupations?

	Current or Usual Job Title (e.g. engineer, carpenter, filling station attendant)	Type of Employer (e.g., factory, bank, garage)	Currently Unemployed
Father (Male Guardian)	_____	_____	_____
Mother (Female Guardian)	_____	_____	_____

Effect on Students: Change in Vocational Maturity

One of the new constructs in the area of career development and career guidance is the concept of vocational maturity. Vocational maturity is considered to be a discrete area of development which covers the life span but undergoes most rapid expansion during the adolescent and early adult years. John Crites, Donald Super, and Bert Westbrook have led development in the conceptualization of vocational maturity and in the identification of its components.

Theoretically, use of the CVIS system should cause some increase in the vocational maturity of its users; and in fact, Harris (1972) found that use of the vocational exploration subsystem four times did cause significant statistical increase in vocational maturity, as measured by the pre- and post-use administration of the Career Development Inventory (Super, et.al., 1971). The same finding resulted from the evaluation of the Educational and Career Exploration System (ECES) in Genessee County, Michigan, also making use of the Career Development Inventory (Myers, et.al., 1972).

Therefore, one way to measure the effect of use of CVIS on students is to measure change in vocational maturity. This can be done by randomly selecting a group of students who will be scheduled to use the system, especially the vocational exploration subsystem, several times. A group of similar size should also be randomly selected, with characteristics as much like the experimental group as possible. This second group will be the control group and should not be allowed to use the system during the course of the study. If the two groups are similar in characteristics prior to use of the system, any difference between the mean vocational maturity score of the experimental group and the control group after the former has used the system can be assumed to be due to use of the system. Should you decide to use this method as a part

of your evaluation of CVIS, talk to someone in your district who has had some experience with research in order to understand the techniques of random selection, pre- and post-measurement, and tests of significance.

There are currently four measures of vocational maturity in the field. These have had a varying amount of work on nationwide norming, validation, and reliability. All such instruments are currently in the experimental stage, and should be viewed as such by their users. Further, at this point in time, they should be used to measure change or to understand where an individual or a group is in vocational maturity; they should not be used at this time for interpretation of individual scores to individual students.

Individual sites should become acquainted with these instruments and should exercise judgment about which would best meet the needs at a given site. Care should be taken to understand specifically which components of vocational maturity are being measured in each instrument and to ascertain whether norms exist for the particular age group with which you are using CVIS. The instruments and the addresses for securing further information are:

Assessment of Career Development (ACD)

American College Testing Program
P.O. Box 168
Iowa City, Iowa 52240

Career Maturity Inventory (CMI) - Dr. John Crites, author

Mc Graw Hill Publishing Company
Monterey, California

Career Development Inventory (CDI)

Material available for experimental use by permission of:

Dr. Donald Super
Department of Counseling Psychology
Teachers College
Columbia University
New York, N.Y.

Cognitive Maturity Test

Material available for experimental use by permission of:

Dr. Bert Westbrook
Department of Psychology and Center for Occupational Education
North Carolina State University
Raleigh, North Carolina

Crystallization of Vocational Plans

Another assumption in regard to the CVIS system is that it should assist students to look at many vocational and educational options, gather information about them, and then narrow those options toward the making of tentative choice. Therefore, one way to measure the effect of use of CVIS on students is to attempt to measure change in vocational planning to ascertain whether it goes from "no ideas" to "many ideas" or from "many ideas" to a tentative choice. This kind of movement can be measured by the administration of a questionnaire to a selected sample of students before use of the system and again after several uses of the system. Again, the use of a control group, which does not use the system, is good research design in order to account for those changes which may take place due to other influences besides the CVIS system.

This questionnaire may be home-constructed, and some of the kinds of questions which need to be asked are included in the student questionnaires in the previous section. One instrument which has had considerable use and work was developed by Dr. David Hershenson and is included following this page. This instrument was used in the dissertation by George Melhus which is summarized in the last section of this handbook.

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OCCUPATIONAL PLANS QUESTIONNAIRE

by

David B. Hershenson, Ph.D.

1. Please describe, as specifically as you can, whatever occupation or type of work you now think you will enter. Even though your plans may be very tentative, give as much information as you can.

2. Do you think you will really follow these plans through? (Check only one)

_____ I'm very sure I will

_____ I'm fairly sure I will

_____ I have some doubts about my plans

_____ I'm very unsure of my plans

3. How satisfied are you with this choice? (Check one)

_____ Absolutely satisfied

_____ Very much satisfied

_____ Fairly well satisfied

_____ Somewhat satisfied

_____ Not really satisfied

4. How much does this type of work appeal to you? (Check one)

_____ Appeals without reservations

_____ Appeals very much

_____ Appeals a fair amount

_____ Appeals somewhat

_____ Does not really appeal

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5. How disappointed would you be if you found you could not enter this occupation? (Check one)

_____ Extremely disappointed

_____ Quite disappointed

_____ Somewhat disappointed

_____ Slightly disappointed

_____ Not really disappointed

6. For how long have you been seriously thinking of this occupation? (Check one)

_____ Since elementary school

_____ Since high school

_____ Since entering college

_____ Within this academic year

7. How many people in this occupation do you know personally? (Check one)

_____ Over 25 people

_____ 13 to 25 people

_____ 6 to 12 people

_____ 2 to 5 people

_____ One person

_____ No one I can think of

8. How many people in this occupation do you know by reputation; that is, how many (other than those referred to in the last question) can you name? (Check one)

_____ More than 50 people

_____ 26 to 50 people

_____ 6 to 25 people

_____ 0 to 5 people

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9. How much reading related to this occupation (other than that assigned in courses) have you done? (Check one)

_____ Over 30 books and articles

_____ 16 to 30 books and articles

_____ 6 to 15 books and articles

_____ 5 or less books and articles

10. Which of the following experiences related to this occupation have you had? (Check as many as apply)

_____ Paid work in the occupation itself

_____ Paid work in an immediately related field

_____ Paid work in a somewhat related field

_____ Volunteer work in the occupation itself

_____ Volunteer work in an immediately related field

_____ Volunteer work in a somewhat related field

_____ A hobby immediately related to it

_____ A hobby somewhat related to it

_____ Other relevant experience (Specify:)_____

11. How many of the courses which you have taken at ~~college~~ School are related to this occupation? (Check one)

_____ Almost all of the courses

_____ Many of the courses

_____ Some of the courses

_____ [illegible] of the courses

_____ None of the courses

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12. (a) List, on the five lines below, the five most important abilities which you feel are required for success in this occupation.

1. _____

2. _____

3. _____

4. _____

5. _____

(b) Now go back and circle the numbers of those which you feel you possess.

13. Which of the following capacities will you be able to bring to your work in order to help take you where you want to go? (Check as many as apply)

_____ Creative abilities

_____ Very high intelligence

_____ A capacity for hard work

_____ Not sure about capacities as related to occupational goals

14. (a) Rank the following personal goals in the order of their importance to you. (Number from 1 through 6, with 1 as the most important to you, 2 as the next most important, and so on.)

_____ Helping other people

_____ Doing well financially

_____ Being in a position of power

_____ Enjoying or creating beautiful objects

_____ Thinking about or working out ideas

_____ Defining your place in the cosmic scheme of things

(b) Now go back and place in a check mark after the three goals which you think this occupation can most satisfy for someone in it.

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15. How many of your major interests (that is, the things you most enjoy doing) do you expect you will be able to pursue within your work in this occupation? (Check one)

_____ All of my major interests

_____ All but one or two of my major interests

_____ The majority of my major interests

_____ About half of my major interests

_____ Relatively few of my major interests

16. (a) List, on the five lines below, your five strongest interests, that is, the five things you most enjoy doing.

1. _____

2. _____

3. _____

4. _____

5. _____

(b) Now go back and circle the numbers of those which you expect you will be able to do within your work in this occupation.

17. How far do you expect you will go in this occupation? (Check one)

_____ To the top

_____ Into the higher ranks

_____ Somewhat above average

_____ Average

_____ Below Average

_____ No idea

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18. Once you are finished with your training, how long do you think it will take you to achieve your highest level of success in your occupation? (Check one)

_____ Within 6 years

_____ 9 to 13 years

_____ 14 to 19 years

_____ 20 years or more

_____ No idea

19. (a) Do you have a second choice, in case these plans do not work out?

_____ Yes

_____ No

(b) If YES, what is your second choice occupation or type of work? (Describe in as much detail as possible.)

(c) If YES, how much do you prefer your first choice over your second choice? (Check one)

_____ A great deal

_____ Somewhat

_____ Slightly

_____ A toss-up

20. How many other occupations (other than your first choice and your second choice, if you had one) are you currently seriously considering as possible careers for yourself? (Check one)

_____ No others

_____ One other

_____ Two others

_____ Three or more others

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21. How many other occupations (other than those discussed in any of the preceding questions) have you seriously considered and then abandoned? (Check one)

_____ None

_____ One

_____ 2 or 3

_____ 4 or more

22. How much time do you spend thinking about what you will do in your future occupation? (Check one)

_____ It is almost always in my thoughts

_____ It is frequently in my thoughts

_____ It is sometimes in my thoughts

_____ It is rarely in my thoughts

23. Rank in order (Number from 1 through 5, with 1 as the most satisfying) the satisfaction which you expect the following will give you when you are through with your training and settled in the community.

_____ Leisure time recreational activities

_____ Family relationships

_____ Religious beliefs or activities

_____ Your occupation

_____ Participation as a citizen in community affairs

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Exploratory Behavior

Another assumption in regard to the CVIS system is that students should be motivated by its use to seek further information about educational and vocational options. It is apparent that the amount of information presented about a single occupation, college, or trade school is insufficient for informed decision-making. The system is designed to provide and encourage broad exploration; more detailed information is needed by a student after his use of the system.

Such detailed information might be sought in reference books; from conversation with a counselor, parent, worker, teacher, etc., or by seeking experiences which provide some opportunity to know the reality of the working environment or school environment. Computer-based projects have not yet collected this kind of data. There are several processes which may be necessary in order to accumulate enough data to analyze the effect of CVIS on students' later behavior.

One such process is that of asking counselors to record the number and names of students who come to talk to them after use of the system and to record specific information about the content of the interview. Not only is it valuable to analyze how many students engage in exploration with counselors after use of the system, but also it is valuable to analyze these interactions in light of the potential change in counselor role as a result of the presence of the system. It could be theoretically hypothesized that students would come to the counselor after use of the computer system with questions at a deeper level of detail because the broader questions had already been answered by the system. Such an analysis can only be made by careful mechanical or manual recording of the content of interviews which follow the experience at the terminal.

A second approach to monitoring exploratory behavior is to establish a sign in procedure in the guidance and school libraries in order to record the

names of students who come to seek material and to record what kind of material they are seeking. These data, of course, must be compared to the list of recorded CVIS users, and comparison needs to be made between the exploration patterns of non-CVIS users and of CVIS users.

In order to be aware of other types of exploratory behavior (such as making a college visit, talking to someone in a given occupation, talking with parents, etc.), a questionnaire would have to be prepared and administered to a sample of CVIS and non-CVIS users to measure whether or not there is a difference between the two groups.

Change in Occupational Knowledge

It can be hypothesized that students who use the occupational exploration part of CVIS will learn factual information about the occupation or occupations which are explored at the terminal. One approach to attempting to measure this factor is to ask students to identify one to five occupations of their primary choice before use of the CVIS system and to ask them to complete a questionnaire something like the one included on the next page, the Vocational Plans Questionnaire. This questionnaire was used by Harris (1972) in her dissertation and was effective in measuring change in occupational knowledge. The same questionnaire has to then be administered to the same students after use of the system. Probability is very high that the student will seek information at the terminal about one or some of the same occupations which have been listed on the first questionnaire. A comparison can then be made about the quantity and quality of information about the same occupation, stated by the student before exploration of this occupation at the terminal and afterwards. Hershenson's Occupational Plans Questionnaire can also be used for this purpose (see page 93).

The procedure described above proposes one way to measure change in knowledge about a specific occupation or occupations. Knowledge about the occupational

world in general can also be sampled before and after use of the system, although this may not be a valid measure of the system's objectives unless additional group instruction has taken place prior to the use of CVIS. If change in general occupational knowledge is to be tested, ACT's Assessment of Career Development, Part 1, Westbrook's Cognitive Maturity Test, organized around Roe categories, and Crites' Career Maturity Inventory, Part 2, can be used for this purpose.

For further reference to these instruments, see pages 91 and 92.

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VOCATIONAL PLANS QUESTIONNAIRE *

Date_____ Name _____

1. Please indicate your plans for education or job training beyond high school by checking one of the following:

   __a. I do not plan to get any further education or job training beyond high school.
   __b. I hope to find a job where I will receive additional training on the job.
   __c. I plan to enter an apprenticeship or a trade school for a few months.
   __d. I plan to attend a junior college for two years or a technical school for 6-18 months.
   __e. I plan to attend college for four years.
   __f. I plan to get some advanced degrees after completion of four years of college.

2. Have you used Willowbrook's computerized vocational exploration system (CVIS)?
   ___No. ___Yes. If yes, how many times?_____

3. Please list the titles of all occupations which you are now considering for your future:

   a._____ f._____
   b._____ g._____
   c._____ h._____
   d._____ i._____
   e._____ j._____

4. For the three occupations which you are considering most seriously, please complete the following information:

	Occupation #1 (the one you are considering most seriously)	Occupation #2 (your second choice)	Occupation #3 (your third choice)
a. As many of the everyday work duties as you know			

* From Harris, JoAnn E. Analysis of the Effects of a Computer-Based Vocational Information System on Selected Aspects of Vocational Planning. Unpublished doctoral dissertation. Northern Illinois University, DeKalb, Ill. 1972

(USE THE MULTIPLE CHOICE ANSWERS FOR SECTIONS b, c, d and e.)

	OCCUPATION #1	#2	#3
4. b. Amount of education or training required to enter the occupation	___	___	___
c. Place or condition of work	___	___	___
d. Beginning salary range	___	___	___
e. Future employment outlook	___	___	___

5. How certain are you that you are likely to end up in any one of the three occupations you have listed above?

_____a. Very sure

_____b. Moderately sure

_____c. Unsure

6. Which of the following have had a significant influence on your choice of the three occupations listed above? You may mark as many as you wish.

_____a. One or both parents
_____b. Other relatives
_____c. Friends
_____d. Teachers or coaches
_____e. Counselor
_____f. Books and pamphlets
_____g. TV shows, movies or magazines
_____h. People in these occupations
_____i. Minister, priest or rabbi
_____j. CVIS
_____k. Other. (Please explain)

_____
_____
_____
_____

Cost Effectiveness

Different types of evaluation of a system are required for different purposes and for different audiences. Although the Board and the administration are interested in a qualitative evaluation of the system's effectiveness with students in the career planning process, there is a very strong likelihood that they are also intensely interested in the cost per student and the cost effectiveness of the system. CVIS is indebted to the careful work of Jerry Florian, of the IBM Corporation, who did a cost analysis of the CVIS operation at Willowbrook High School and who has proposed a model for a similar cost analysis in other settings. His entire manuscript is presented verbatim in the section which follows.

CVIS COST JUSTIFICATION GUIDE*

Prepared by Jerry Florian,
IBM Corporation, for the
use of IBM Sales persons

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CVIS COST JUSTIFICATION GUIDE

Introduction

CVIS is cost feasible and can be effectively justified. This is evidenced by the fact that CVIS has been justified and successfully implemented in a variety of educational environments throughout the country. These institutions are both large and small, serve different socio-economic localities and have populations ranging from junior high school through college.

Today's emphasis on career education, requirements for improvements in educational programs, the need for accountability, and the ever-present desire to reduce educational costs produce an atmosphere where it is highly desirable to receive the benefits that can be provided through application of CVIS functions.

CVIS can help an educational institution provide more effective guidance department services in the most economical way. Of necessity, many of these services are currently provided on a one-for-one student-counselor basis. Because of this, requests for additional or improved services require an increase in counselor availability. It is in this atmosphere that CVIS is most beneficial. CVIS will provide information to students for occupational exploration and for educational planning. Counselors are benefitted through a highly efficient and more economical method of performing certain routine but critical clerical functions.

A proposal for an effective method of improving services and for cutting certain costs will receive favorable consideration. However, the educational environment continues to be characterized by the dilemma of providing improved education in the face of rapidly rising costs along with the continued reluctance on the part of the public to provide increased funding. Therefore, your proposal must clearly describe the program, its objectives, and its benefits and their value.

The purpose of this guide is to help you to identify and determine the value of benefits that can be received through implementation of CVIS.

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HOW TO JUSTIFY CVIS - THE TECHNIQUE: HOW TO USE THIS GUIDE

1. Know CVIS Functions

   Knowledge of CVIS functions is essential in order to evaluate the effect of CVIS on current procedures. How can you learn about CVIS?

   a. Read the overview of CVIS functions in the CVIS Marketing Guide.
   b. Read the CVIS application brief, GK20-0675
   c. Request information from or visit the CVIS team at Willowbrook High School.*
   d. "Ask the man who owns one."
   e. Obtain the CVIS demo tape and use each function

2. Know the benefits that can accrue through the use of CVIS

   Benefits that can be obtained from each CVIS function are described in the next section.

3. Perform a survey.

   Survey your educational institution to determine:

   - What the evaluation procedure is for recommendations for improved or additional educational programs.
   - What services are currently being offered by the guidance department.
   - How much it costs.
   - How CVIS would impact these functions.
   - What the clerical functions performed by the guidance department are.
   - How much it costs.
   - How CVIS would impact these functions.

4. Identify and quantify benefits

   - Cost saving
   - Program Improvement
   - Summarize quantifiable benefits into benefit cells for presentation and analysis, if desired.

5. Determine hardware requirements.

6. Review and present to management:

   Recommendations for implementation

   Functions
   Benefits
   Values versus costs

   Request for approval

* Project CVIS
Willowbrook High School
1250 South Ardmore Avenue
Villa Park, Illinois 60181
Phone: 312-833-8075

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HOW CVIS IS JUSTIFIED

CVIS is justified by the benefits received through its role as a counselor support system. This support falls into two main functional areas:

1. CVIS is designed to assist the counselor in the function of providing vocational or career guidance to students. As an automated library, CVIS is a highly efficient and improved way for a student to receive and relate to himself, information on occupations and educational opportunities.

2. CVIS is designed to assist counselors and administrators with the clerical tasks that are so necessary in the performance of their duties. CVIS is a superior on-line method for retrieving, manipulating, and maintaining student records, schedules, and reference-type information on occupations and educational institutions. Significant cost savings can be realized through elimination or improvement of existing manual procedures.

Thus, it is the application of computer technology, through CVIS, to these two broad functional areas that provides the benefits necessary for justification. These benefits can be grouped into two categories:

Improvement in educational/guidance program.

Cost savings.

For our purposes, improvement in program shall be defined as an improvement in the career guidance process through new or better procedures. Cost savings is the dollar difference between the cost of performing a certain function on a manual basis and the cost of performing that same function through CVIS. Obviously, to be a savings, the cost of performing a function through CVIS must be less.

Justifying CVIS on a local basis is a matter of evaluating the effect of applying CVIS functions, and analyzing this in relation to the cost of implementing CVIS. Benefits must be identified and, where possible, quantified. Cost saving benefits are relatively easy to identify and quantify. Improvement in program can be readily identified but difficult to quantify. In this case the value may be determined by what the institution is willing to pay to achieve this improvement.

BENEFITS

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This section is designed to help you identify those benefits that can be realized through the use of CVIS in your institution. As a guide, CVIS functional areas are listed below, followed by their corresponding benefits. An analysis of current versus CVIS procedures will determine what benefits can be realized in your specific situation. A discussion of CVIS functions with your institution will also help you identify other benefit areas. Note, that the ultimate value of these benefits is dependent upon the proper and successful use of the CVIS system.

DETERMINING THE VALUE

Cost Savings

Some CVIS benefit areas suggest cost saving potential; others, an improvement in program. Cost saving benefits are generally obtained as a result of implementing those functions that bring about cost displacement and/or cost avoidance. Most emphasis is on those savings brought about by an increase in the productivity of labor. However, there may be significant potential for savings in other areas, such as elimination of forms, outside services, books and subscriptions, etc.

Through the use of CVIS, the counselor or clerical time to perform functions such as student record retrieval and maintenance, student schedule changes, etc., may be reduced or eliminated, thereby reducing costs. Also, since most student-counselor contacts are necessarily on a one-to-one basis, the cost per contact hour is relatively high. At one CVIS school, the cost per contact hour with a counselor was $12.97, while the cost per contact hour with a CVIS terminal was only $1.96.* If counselors are performing functions that CVIS can provide, CVIS may do it at less cost.

Potential cost savings can be estimated by an analysis of current procedures versus projected procedures using CVIS. Current functions should be determined and documented. This should be done as accurately as possible so that the costs of these functions can be determined. Next, the effects of applying CVIS to these functions should be determined. Costs can then be estimated and savings calculated.

Improvement in Program

That CVIS can help improve guidance services is easily determined. However, measuring the value of improvement in program may be much more difficult than measuring the effects of applying modern data processing techniques to historical administrative-type functions. The benefits received depend on the effectiveness of the present career guidance program and how well CVIS is ultimately integrated into the program. One approach to quantifying these benefits may be to estimate and evaluate the costs of performing CVIS functions under a manual system. However, the value of these benefits may well be determined by what the institution is willing to pay for them.

*Breakdown:		
	Terminal, CPU, Phone Line, Modem, Disk Space:	$1.33/Hr.
	CVIS Secretary Cost Allocated to Each Terminal:	.59/Hr.
	Total Cost Per Hour:	$1.92

BENEFITS OF STUDENT FUNCTIONS

Functions

Career Exploration

Four-Year Colleges

Community Colleges

Technical/Specialized Schools

Apprenticeships

Local Jobs

Military Program

Financial Aids Search

Select-A-Course

Computer Assisted Instruction

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General Benefits

One of the most important objectives of a guidance department is to assist a student in the development of career planning. The computer can accomplish some parts of this career guidance function as well as, or even better than a counselor. For example, CVIS is highly efficient in providing information about occupations, and assisting in the search for and the selection of a college or trade school. Integrated into the guidance program, CVIS can allow a counselor more time in that part of the guidance function that benefits most from personal counseling.

Two CVIS terminals can provide about 2500 "counseling sessions" during a school year. Because of counselor availability, this is twice as many sessions as one counselor can provide. Also, CVIS may have a cost advantage, depending on the school's data processing costs and the counselors' salaries and experience. A student may expect to have a total of only four hours with a counselor during his high school career. Because of other student/counselor activities, this may preclude a meaningful one-for-one career guidance experience.

Student Benefits

CVIS is ready when the student is. It is available according to his schedule and his readiness for career guidance. Many times, when a counselor initiates a session on career planning the student is not ready and the time has been wasted.

CVIS has high appeal to a student. CVIS provides the student with an interesting and motivating experience, which broadens his knowledge through exploratory experiences of looking at different occupations based on his interests and educational aspirations.

Privacy allows a student to explore on an individual basis, at his own pace, without restriction or embarrassment. Many students feel more comfortable getting this kind of information from a computer rather than a counselor or printed source of information. Students can "control" the computer, and many learn more than from other sources.

Students need a more effective way to help them obtain information and receive direction in the pursuit of a career. With CVIS and a planned, continuing career guidance program, a student's entire high school career may be more meaningful and productive. An effective program can also prevent false starts in careers.

CVIS is an immediate source of vast amounts of information that can be specifically "tailored" to each student. He has the ability to review past performance and how it relates to future plans, both vocational and educational.

CVIS offers a service that some schools don't have. At one school a counselor remarked: "CVIS is doing the job we supposedly should be doing." CVIS has high value in a definite improvement in programs where services are provided that did not exist before. If a guidance department is providing these services, CVIS can perform like functions at considerable savings.

CVIS functions equally well with students who have different abilities and scholastic backgrounds. Even "bottom-half" students, who received little counseling in the past, are benefited through specialized and technical school selection, apprenticeships and local job information.

With CVIS, a student can be more informed and better prepared. This leads to more effective and productive student-counselor sessions.

The computer is available at night, when the counselor isn't.

Counselor Benefits

As a counselor's tool, CVIS is unsurpassed:

Information is current. All counselors can not be expected to keep updated on occupations and educational institutions.

CVIS provides answers to many of the questions that counselors are asked most.

The counselor can be relieved of repetitive information dissemination.

Counselors can have more time to work with unmotivated students on a personal basis.

With a library of information available at the terminal, a counselor does not have to spend his time learning this for his own use.

The computer doesn't get tired. It can sort through mountains of information to retrieve a specific item for a student.

The need for CVIS as a counseling tool was brought out by one superintendent when he said: "Vocational counseling in general is very limited in schools. What little is done is usually poorly done. The technical knowledge required is beyond what most counselors have or are able to acquire. For this reason CVIS provides the tool by which our schools are able to reach and guide those students who are searching for a suitable occupation."

School Benefits

For schools without a guidance department, CVIS can provide a significant added program function at nominal cost. This is especially valuable with small schools or in districts with many locations.

Consider the availability of a terminal versus a counselor. A terminal is available throughout the day, while a counselor may have only 20% of his time available for personal counseling.

CVIS can provide career guidance functions to more students without increasing the number of counselors.

Where there are many schools in the system, CVIS provides a centralized source for information. Thus, equivalent information may not have to be purchased and maintained at each location.

CVIS can provide the base for a more effective and consistent career guidance program.

If a school district must increase the student/counselor ratio (i.e. more students per counselor), CVIS can help by easing the pressure on the counseling staff.

Information updating can be easier and cheaper than expensive, written materials.

Many students can be on the system simultaneously.

CVIS can be the catalyst to bring the business community and schools together. Traditionally there is little or no communication, even though it is extremely important in adding relevance to a career guidance program.

Career Exploration

A student can begin and continue with career exploration and planning, when he is ready. He does not have to depend on the counselor's time preferences regarding a personal appointment.

CVIS can help some students narrow their choice of careers, and help others broaden their career exploration.

CVIS offers a motivating learning experience.

CVIS provides a broad base of occupational information that can be selectively, instantly retrieved according to individual interests. This helps a student explore in an organized way.

Availability and accessibility of information encourages a student to explore more career possibilities.

Information is maintained current and at reasonable cost through the CVIS Consortium.

CVIS can help a student sort through career information and give him some direction. The student is now more prepared for a student-counselor session, as he is more likely to bring in data for corroboration, rather than ask for data itself.

CVIS records all of the occupations that the student explores so that he may review his exploration the next time he is at the terminal.

Post High School Training

CVIS is an effective and efficient way for a student to identify colleges that meet his specific requirements.

A student is better informed and more prepared for a personal conference with his counselor. The counselor does not have to start with questions such as "What will your major be?", or "To what part of the country do you want to go?"

CVIS encourages a student to explore different college possibilities, as it is easy to change parameters and repeat the search. This is impossible to do using college catalogs.

Use of CVIS can significantly reduce the counselor time required to identify and disseminate information on specific colleges.

All counselors can't be expected to have information on all college opportunities. CVIS never forgets.

Through teaching scripts about college, military, apprenticeships, etc., the student can receive down to earth information that may not be taught in a formal classroom environment.

Through the occupational search program it is easy to find out what type of training is required for a specific occupation.

Local Jobs

CVIS provides an easy and efficient way for students to receive information about employment. Its convenience encourages a student to use the system. The entire community benefits from this system, and it's a good way to develop good relations between the school and local businesses and industry.

Through teaching scripts, the student can learn about things that may not be taught in the classroom. Students learn about how to find and interview for a job, and what factors to consider when choosing a job.

Financial Aids Search

This is a highly effective method to help a student determine his eligibility for financial aids to education. The system uses the student's own characteristics to search the financial aids data base of loans, scholarships, and grants.

Many counselors don't have this information and those that do find it difficult to review each aid to determine whether or not the student is eligible.

This function of CVIS can be extremely beneficial to students and parents. If one student can receive enough information so that he is able to successfully apply for and receive financial aid, CVIS will have proven its worth.

Select-A-Course

Select-A-Course is a smooth, counselor-time-saving way for students to request next year's courses. Courses are selected on-line, are stored for future reference or modification, and become input to the computer scheduling program.

Select-A-Course guides the student through the entire procedure. After being automatically registered for his required courses, the student can review his graduation requirements and select courses from elective offerings. The system will not allow a student to request a course for which he does not have the prerequisite.

Select-A-Course can save time for students, counselors, and clerks. Manual act v-ities such as filling out registration forms, filing, and keypunching can be eliminated. This also eliminates transcription errors.

Computer Assisted Instruction

CVIS provides an easy and effective way for an institution to develop and implement CAI courses. Teachers can develop their own courses, and with minimal instruction can enter and maintain these courses on-line. CAI capability enhances the cost feasibility of CVIS and is an excellent way for teachers to become involved.

Faculties appreciate the increased facility to treat each student as an individual and find greater job satisfaction.

More courses can be offered since a course can be offered even to a single student. A teacher does not have to alter the content of a course when one student needs individualized instruction.

Computer course materials are easily modified, unlike workbooks or textbooks. Further, once modified, a course can be presented to thousands of students.

The computer allows the student to perform according to his individual characteristics. It allows him to begin at his own entry level rather than with a class when he may be far ahead or far behind the average.

The system can take advantage of the student's individual learning style and capabilities and present him information using techniques which he is most likely to accept and respond to. It permits the student to proceed at his own rate and not be forced to go faster than he is able, or slower than will maintain his interest.

The computer can take advantage of the student's special interests and branch him to examples or course areas of particular interest to him.

Immediate reinforcement is assured, as the student is notified immediately of the correctness of his answer.

The computer can be presented as being much more "human" than off-line methods of individual study.

The learning process is enhanced with CAI because the student is required to respond individually. Therefore, he cannot sleep, skip ahead, or cheat.

The material presented to the student is accurate and consistent. The computer does not tire, but is always ready.

CAI course materials can be prepared by the most capable and knowledgeable instructors. The course will never deteriorate, but may be improved to the extent the authors continue to improve it.

The student's interest is maintained by the continuing interaction and his general motiviation is enhanced by the comfortable fit of study materials with his interests and capabilities.

BENEFITS OF COUNSELOR/ADMINISTRATIVE FUNCTIONS

Functions

Student Record Create/Update/Retrieve

Student Schedule Retrieval and Maintenance

Master Schedule Maintenance

Monitoring Student Use of the System

Vocationally Handicapped Reporting

Recall of Information About Occupations, Schools, and Financial Aids

Attendance

General Benefits

CVIS can be extremely effective in helping counselors with the functions of disseminating information and performing various clerical tasks associated with their position. Some counselors spend as much as 70% of their time on these activities. Counselors are enthusiastic because CVIS provides a superior means of performing these functions in less time.

Relief from clerical functions means that counselors have more time to make better use of their skills for interpersonal counseling, advising, appraising, working with teachers, group activities, working with parents and the community, and local research.

Counselors can provide more individual attention to students.

Improved student-school relations.

Immediate access to data by those who need it.

Increased productivity of staff.

Vast improvement in record-handling capability.

Greater responsiveness to requests for information from an on-line data base.

Improved control of information through central update and single entry of information.

CVIS is particularly appealing to administrators because of improved procedures for information processing with a resultant reduction in costs. CVIS directly affects those functions that provide significant cost savings as a result of being automated.

CVIS provides an opportunity to sharply reduce administrative, counselor, and secretary/clerical costs per unit of work (e.g. schedule changes).

Better utilization of resources, e.g. ability to handle an increased workload without increasing personnel.

Reduces repetitive clerical tasks, such as completing schedule change forms and logs, and schedule retyping.

Records are immediately available, which eliminates the need to index through manual files.

Counselors can be better prepared for personal counseling by having complete and current information in advance.

Instantly retrievable information helps make maximum use of a counseling session.

Student Record Create/Update/Retrieve

Student records contain information that is of vital importance to an educational institution. Proper maintenance, accuracy, protection and accessibility is essential. CVIS on-line functions help assure these attributes.

All users have access to the same record; any update of a student record updates that record for all users. This helps assure accuracy and eliminates communication of changes and the manual steps required to change each users record.

Can help eliminate paper records.

Most information on a student is available from one source. With a manual system, a user may have to go to multiple sources to obtain all required information.

Eliminates the need for each user to keep and maintain records.

Eliminates unnecessary steps required to create or change a record, e.g., no intermediate paper forms to fill out. This can save time and forms cost.

Ability to obtain up-to-date printed record on demand.

Records are easy to update.

It's easy to create a new student's record.

Records are easily and quickly retrieved, and in a form that is easily interpretable.

A detailed, up-to-date attendance record can be printed on demand for those who do not have access to a terminal.* This is valuable for counselor-parent or dean-student sessions.

On-line record updating can reduce error correction and auditing costs.

Records are current as of last transaction.

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* An attendance reporting system is not part of CVIS. CVIS does provide on-line retrieval of attendance information that is updated by a user-developed program.

Student Schedule Retrieval and Maintenance

On-line student schedule changing is one of the most valuable CVIS Counselor/Administrative functions. Significant direct cost savings can be achieved along with improved administrative operations.

At one CVIS school, the cost of a student schedule change under their manual system was about $5.46. With CVIS, this cost was reduced to $1.60! The significance of this savings becomes more apparent when you consider that at some institutions the cost of a schedule change may be $8.00-$10.00 or more, and the number of changes in a one-year period may equal or exceed the enrollment.

On-line schedule retrieval and change capability means that counselors have access to all information required to make a change, and can make that change immediately.

When a change is made, the student's schedule is automatically updated along with master schedule tallies.

With current, correct, and instantaneous availability of information on class openings, the counselor can tell a student now whether or not he can get into a class. Under a manual system, the counselor may have to submit a request for change to a staff member (scheduler) responsible for the master schedule. The scheduler will check to determine if the requested class is open or closed, indicate this on the change request form and return the form to the counselor. If the change is not approved, the counselor must recall the student and recycle the request. Through CVIS, scheduler approval can be eliminated, and repeat requests for schedule changes would not be necessary. This can provide a significant time and cost savings.

Through CVIS, it is possible to effect a complete schedule change in the time it previously took to fill out the change request form.

Student schedules are centrally maintained. This means that each counselor does not have to keep and maintain each of his student's schedules.

Maintenance of duplicate files is eliminated.

All users have access to the same information. Under a manual system, users who maintain their own records may have different information because of problems in communicating changes.

File recovery can be easily achieved.

The counselor is relieved of much of the clerical work involved in schedule changing. This means a savings of time and money.

On-line scheduling and registration can reduce the clerical workload of the staff responsible for student accounting.

CVIS can eliminate the requirement for overtime caused by the large number of schedule changes that occur at the beginning of each semester.

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CVIS eliminates problems caused by schedule changes that cannot be completed in one session.

The counselor receives personal satisfaction in a task completed quickly and accurately.

The CVIS schedule change procedure can help eliminate costly errors. An error can carry through to attendance reporting and even grade reporting. Errors corrected at this time are costly and time-consuming.

Use of CVIS can significantly reduce the time (and overtime) required to stabilize student schedules at the beginning of a semester. Under a manual system this can take up to four weeks.

A new student's schedule can easily be entered on-line, thereby allowing him to start classes quickly and with a minimum of administrative procedures. With a manual system it may be difficult to handle scheduling for a transfer student because counselors usually do not have up-to-date section tallies available to them.

CVIS may eliminate the need for certain forms, such as a request for schedule change form. This would eliminate the cost of the form and the cost of filling it out.

Since student and master schedule files are maintained on-line, current schedules can be printed at anytime, on the terminal. This has many advantages. Normally, schedules are printed at the beginning of a semester only, and since there are usually many changes, they soon become outdated. Even though there may be a system of updating, not all changes may be communicated and the correctness of any one schedule becomes questionable.

On-line schedule printing provides each user with a complete, current, easy-to-read copy, no matter how complex the change or what other previous changes there have been. This eliminates manual changes or retyping of a user's student schedule, and assures that current information is available when needed.

With CVIS, most schedule changes can be completed in a few minutes. Under a manual system, turnaround time could be a minimum of 24 hours, and, if there are problems, this could take as long as five days. Students benefit by having a firm schedule sooner and can start the learning process more quickly.

Some Additional Benefits

If Select-A-Course is used, course request changes can be made on-line, as easily as schedule changes.

Immediacy of information transmittal means that attendance is more likely to be correct. Also, through a user-written program, an attendance card and a drop slip can be automatically prepared for each schedule change.

Some schools are moving to university-type scheduling, i.e. pulling cards from tub files. A primary reason for this is the time and costs involved in schedule changing. CVIS can eliminate this problem and still allow a school to take advantage of computer scheduling.

Master Schedule Maintenance

On-line master schedule maintenance provides significant benefits to the scheduler, i.e. the individual who is responsible for student scheduling. Class sections are tallied and detallied automatically as counselors make schedule changes. Adding or removing sections and adding or subtracting seats from sections is easily accomplished on-line.

This information does not have to be communicated to counselors, as it has been automatically updated and is available when a counselor queries a class section for seat availability. A considerable savings in scheduler time is achieved, as he no longer is involved in most schedule change procedures, nor is he required to manually maintain his master schedule.

Monitoring Student Use of the System

Computer monitoring functions allow a counselor to track a student's career planning activities, and therefore be more aware of when personal counseling would be most appropriate. This helps a student make best use of CVIS and his personal counseling sessions.

Vocationally Handicapped Reporting

The Vocationally Handicapped Report is a required report that is prepared periodically for a state agency. It contains a list of handicapped students showing handicap and courses being taken.

Producing the report itself is not a CVIS function, however, all of the information required to prepare the report is contained in the CVIS files. This information can be entered, retrieved, and changed on-line. This facilitates report preparation and helps assure its accuracy. Accurate reporting to state agencies may increase funding to the institution.

Recall of Information About Occupations, Schools, and Financial Aids

CVIS is like a library at a counselor's fingertips. A counselor has a very limited amount of time that he can spend with each of his students during a school year. CVIS can help a counselor make more effective use of his time through providing immediate retrieval of information about his students, his school's curricula, apprenticeships, trade schools, colleges, occupations, and local jobs. The primary benefit is to the student, through more effective counseling sessions.

Attendance

While an attendance reporting system is not part of CVIS, attendance information can be maintained in CVIS files and displayed when desired. Automated attendance keeping along with CVIS on-line attendance display features can be extremely beneficial.

CVIS provides an immediate response to a student's attendance record. The display shows period and day absences for the month, along with cumulative full-day absences for the year.

On-line access to this information is extremely valuable to the counselor during student-counselor sessions or for attendance follow-up. In a manual system, this information would have to be tabulated by hand, or may not even be available.

On-line printing of this attendance record makes this information easily available to those who are away from a terminal. For example, a dean has an immediate, printed attendance report for use during a dean-parent conference.

DATA PROCESSING BENEFITS

CVIS is a tested, proven package. It works, and it is being successfully used throughout the country. Creating a system like this on a local basis is all but precluded because of developmental costs and lack of expertise on career development theory.

CVIS is relatively inexpensive. The one-time purchase price represents about .02% of the development cost. Hardware costs are easily justified by benefits received.

CVIS can easily be modified to run under another T. P. driver.

It is easy to add functions to CVIS.

Scripts are easily updated - either batch or on-line. Counselors can do it!

CVIS is easy to implement. It is well documented and easy to get operational.

CVIS provides an easy way to expand data processing into the educational program. Data processing can now be part of the entire educational process.

On-line data entry and updating has an advantage in that data is captured as close to the source as possible. This can help solve some of the problems of traditional data entry caused by transcription errors, delays in entering data, and associated costs.

SOME ADDITIONAL BENEFITS

A hint if you use punched cards for grade reporting: Since all student schedules are kept current through on-line updating, do not punch original grade cards at the time of computer scheduling. All required information is maintained in the data files, therefore grade cards can be punched when they are required.

Print a class list and distribute it to teachers just before grade reporting time. After teachers have confirmed the correctness of the list, punch grade cards.

This procedure can reduce errors and provide a significant cost savings. In many batch systems, grade cards are punched at scheduling time and then maintained in tub files. Each time a schedule change occurs, the file must be updated. This is a costly process and extremely error prone.

If you have a regional center or a district whose schools are widely separated geographically, chances are that there is a lot of traveling between schools picking up and transporting student data, such as grades, records and updates, registration information, attendance, etc. The turnaround time for processing this information is long. With on-line functions, a lot of time can be saved by counselors, staff, and data processing personnel. With more time, people can work a new development or more important functions.

SURVEY GUIDE

Justification for CVIS is based on improvement in educational program and/or improvement in information processing which results in cost savings and other operational benefits. In order to identify and quantify the benefits that will be realized, it is important that you determine what the current guidance program offers, what the information processing requirements are, and what the associated costs are.

The following survey form is a guide which can be used to obtain information about your institution, the guidance department and it's goals, services and costs. It does not encompass all questions that will have to be answered, however it will lead to a discussion which should bring out further questions regarding procedures and requirements that are unique to your institution. The forms are for your use during an interview and should not be left with a user department for completion.

Some of the questions may not seem relevant for your purposes. If so, you may disregard them or use them to gain further insight into the functions of the guidance department, what it's problems are, and where it is going. The comments that are associated with some of the questions are intended to help clarify the significance or usefulness of the information.

Some of the information may be unobtainable. This will probably not be because of an unwillingness to provide the information, but because it simply is not available. This includes current dollar costs of services, a breakdown of counselors' time or activities, and documentation of certain procedures. This can be used to your advantage by identifying problems or requirements that CVIS or other data processing techniques can address.

It may be advantageous to question everyone involved in a department. Current procedures will probably not be documented or even known by any one person. Get the data processing department involved. They have probably never worked with the guidance department, and will benefit from an understanding of its functions.

The purpose of the survey is to obtain information that will enable you to identify and quantify the benefits that can be received through implementation of CVIS. Because CVIS performs in specific, pre-defined functional areas, a prior knowledge of CVIS is essential. Information obtained through questioning will enable you to document affected procedures. Current costs can then be determined.

Next, determine how CVIS would affect these procedures, i.e., what functions would be eliminated or improved. Benefits can now be identified and quantified.

Where to Start

Sell the superintendent and initiate the survey at the district level. Ultimate authority and decision-making powers are here.

The superintendent has more objectivity and can view things from a different perspective. He can look at the entire guidance department to evaluate its functions and determine whether or not it is meeting its objectives. Most superintendents will welcome suggestions for improving the guidance program and will consider your proposal.

Request that someone at the district level be assigned to assist and to be responsible to the superintendent for the survey. Also, direction should come from here regarding appropriate personnel to interview. A memo from the superintendent to these people will give authority and importance to your efforts.

SURVEY FORMS

1. District Superintendent

District or Institution _____

Superintendent _____

District Population _____
Breakdown by School and by Year.

What is the evaluation procedure for a proposal for an improvement in program or a new program?

Determine how CVIS would have to be justified. This will help focus your attention on those areas that will provide justification and enable you to eliminate unnessary work.

Name and title of individual responsible for the guidance department.

_____

Where does guidance fit within district priorities and objectives?

Has there ever been a study to evaluate the effectiveness of your guidance department?

How satisfactory are the current guidance department services?

What improvements would be desirable?

Does the guidance department have written, measurable objectives?

How has the current interest in career education affected your district?
Your guidance department?

Number of counselors _____

Student/Counselor ratio _____

Has this ratio recently changed or is it going to change? Why?

If this ratio is going up (i.e. more students per counselor) there will be more of a strain on existing counselors and therefore more justification for CVIS. If the ratio is going down, it is costing more per student to provide more services. Consider the functions that CVIS can provide at lower cost.

What would be the reaction of the director of guidance and the counselors to computer assisted guidance services?

2. Business Office

Business manager _____

Yearly district budget _____
If multiple schools, obtain budget by school.

Guidance Department budget _____
If multiple schools, obtain budget by school.

Breakdown of budget:
Personnel _____
Counselors _____
Secretary/Clerical/Other _____
Supplies _____
Capital outlay _____
Other _____

Average salary per counselor (include benefits) _____
Days worked per year _____
Hours worked per day _____
Hourly rate _____
Obtain whatever information it takes to determine the hourly rate of guidance personnel for cost analysis purposes.

Average salary for secretary/clerk _____
Hourly rate _____

Salary of individual responsible for student accounting _____
Hourly rate _____

Per pupil expenditure for guidance department services _____

Total district per pupil expenditure _____

What is the cost of guidance as a % of total budget?

What student population is used in calculating per student expenditures, average daily attendance or enrollment?

What is the average daily attendance? _____
If multiple schools, obtain breakdown by school.

What is the average daily enrollment? _____

3. School Administration

Principal _____

What is your evaluation of current guidance department services?

Where does guidance fit in your priorities?

What improvements in guidance services would you like to see?

Individual responsible for student accounting (scheduling, grade reporting, etc.)
Name _____
Title _____

How is student scheduling accomplished?
Determine what are the procedures, forms used, individuals involved, etc. All scheduling information will be helpful if you are considering Select-A-Course.

How do you maintain the master schedule (tallies, adding and deleting sections and seats, etc.)?
It is important to obtain procedures and costs if possible, because many of these steps can be eliminated with CVIS.

What departments maintain student schedules?

How are they updated?

What are the steps you and your people take in making a student schedule change?
Identify procedure and time per step if possible.

How are student records kept?
How are they retrieved and maintained?

How is attendance taken?
Determine the procedures.

Is the attendance system effective? Why?

What attendance records are kept?

Who references these records? Why?

What reports are written for attendance?

4. Guidance Department

Director of Guidance _____

Number of counselors _____

Student/Counselor ratio _____

Other Personnel:
Function
Number

Department Budget _____
Breakdown:

Does the department have written, measurable objectives?

If not, will they be required in the future?
This discussion will help you relate CVIS to the achievement of department goals.

Do you have a formal career guidance program?

How do students obtain information on occupations (e.g. counselors, library, career night, etc.)
How is this information updated?
How often?
What are the costs?

How are students counseled regarding post-high school education?

Do students get information on how to apply to a school, or how to visit a school?
CVIS has teaching scripts for these functions.

How do students receive information on financial aids to education?

How do students receive information about apprenticeships and local jobs?

Have there been any local studies regarding how a counselor spends his time?
Try to get rough estimates. This can give you an idea of how a counselor could benefit if he could be relieved of some clerical and information processing functions. These activities include:

- Schedule changes
- Attendance
- Maintaining student records
- Information processing, including looking up information on colleges, vocational schools, scholarships, occupations.
- Making lists of the above available options for students.
- Personal counseling for career planning.

How much time can a student expect to spend with a counselor during a year?

How many contacts?
Try to estimate cost per contact.

What improvements would you like to see in the guidance department?

If counselors could be relieved of some of their clerical duties (through CVIS) how would they use their time?

Do you have any part in attendance keeping (e.g. following up students with attendance problems)?

Who uses attendance information?
Where do you get it and how is it maintained?

What student records do you keep?
How are they maintained?

How are students scheduled?

What are the registration procedures?
If you are considering Select-A-Course, obtain detailed steps and time so a comparison can be made between current procedures and CVIS.

Do you maintain a schedule for each student? How is it updated?

What is the student schedule change procedure?
You must obtain enough detail information to determine how much it currently costs to make a schedule change and what the procedures and savings would be under CVIS. Obtain the entire procedure from the time a student requests a change to the time the change is approved and all documents are updated. Document each step, who does it, and how long it takes.

What is the average amount of time that a counselor takes to make a schedule change?

What documents are referenced (e.g. student personal record, transcript, student schedule, etc.)

How are these records created and maintained?

What form is used to communicate the change?

Where does each copy go? How does it get there? What is the procedure at each of the departments that receives a copy?
CVIS can eliminate this procedure, so it is important to obtain information on all steps involved and associated costs.

What other personnel are involved in a schedule change? What do they do?

When a change is complete and finalized, how is it communicated (to whom and by whom)?

As a result of a change, what records are changed and/or created (e.g. schedules, grade cards, registrar's permanent record)?
Each person who keeps a student schedule must be notified. There may be 8 or more individuals who maintain a student's schedule and each must make a manual change. With CVIS, a complete, updated schedule can be printed at the terminal when a change is made.

How often is a schedule change not completed during the initial student-counselor session?

Under a manual system, a change may have to be recycled as many as 3-5 time before it is successfully completed. The reason is usually lack of current information to the counselor. This problem is solved with CVIS. Also, the number of "change cycles" can be reduced.

How many schedule changes are there during a school year?

SAMPLE MANUAL VS CVIS SCHEDULE CHANGE PROCEDURE AND COST

This example is based on the actual experience of a CVIS user. It is a comparison of the step by step procedures required to do a simple schedule change before CVIS and with CVIS. It is shown here to illustrate the information required to analyze current costs and how CVIS can be effectively used to improve a procedure and reduce costs.

Manual Schedule Change Procedure

1. Student makes appointment with his counselor.

2. Student requests a schedule change from his counselor.

3. Counselor verifies reason for validity.

4. Counselor retrieves student's schedule. The schedule is kept in the student's file or master file in central location of guidance office.

5. Counselor retrieves student's permanent record.

6. Counselor checks course prerequisites and student's permanent record to determine if the student is eligible for the requested course or if the student has previously taken the course. If the change cannot be made, look for alternatives.

7. Counselor refers to master schedule. Master schedule maintained in chart form on guidance office wall. The counselor reviews this schedule to determine whether or not a change is physically possible (e.g. is the requested course offered?, Is the requested course offered during the same period that the course to be dropped is scheduled?)
   Note: The counselor does not have available to him tally information (number of seats filled or available for a section).

8. Counselor obtains and completes a schedule change request form.
   The following information is entered on the form: student name, student number, grade, counselor name, name, teacher and room of subject to be dropped, name, teacher and room of subject to be added, reason for change, and date.

9. Schedule change form is transmitted (by counselor, secretary, clerk, or student runner) to scheduler.

10. Scheduler retrieves his copy of student schedule.

11. Scheduler retrieves master schedule (with section tallies).

12. Scheduler determines whether or not this change is possible, e.g. can the student make this change section-for-section, or is there a seat available in the requested section.

13. a) If the change is not possible, the reason is written on the schedule change form, and the form is sent back to the guidance department. Here, the change request cycle is started again. The counselor must initiate a request for a student visit, and hold another student-counselor session to determine an alternate change.

    b) If the change is possible, the scheduler OK's the request, changes the tallies for the dropped section and the added section, and manually changes his copy of the student's schedule.

14. An add/drop notice is prepared and distributed to appropriate teachers.

15. The approved schedule change form is sent to the counselor and to all departments who maintain a student's schedule.

16. Each department manually changes its student's schedule.

17. The attendance office changes the student's attendance record.

18. The student accounting office creates a new grade card.

19. The schedule change form is filed in the student's file.

20. The registrar updates the student's permanent record.

21. The student returns to his counselor for his approved schedule change.

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CVIS Schedule Change Procedure

1. Student makes appointment with his counselor.

2. Student requests a schedule change from his counselor.

3. Counselor verifies reason for validity.

4. Counselor retrieves student's schedule through CVIS terminal.

5. Counselor retrieves student's permanent record through CVIS terminal.

6. Counselor reviews student record to determine if the student is eligible for the requested course or if the student has previously taken the course. If the change cannot be made, look for alternatives.

7. Counselor retrieves master schedule through CVIS terminal.
   Note: Seat availability is displayed.

8. If space is available, the requested change is entered via the keyboard.

9. The system updates the student's schedule, and displays and prints the new schedule at the terminal.
   Note: This is a complete schedule, and is printed in multipart form for distribution to the student and to all departments who keep a student's schedule.

10. The complete schedules are distributed to all departments who maintain a student's schedule. The old schedule can be changed simply by replacing it with the new schedule.

11. The registrar updates the student's permanent record.

Cost Analysis

Manual Procedure:

Counselor Time	$ 4.31
Scheduler Time	.64
Administrative Clerical Time	.12
Guidance Clerical Time	.39
Cost per Schedule Change	$ 5.46

Yearly Costs:

Number of Schedule Changes Per Year:	2700
Add: Number of Changes That Must be Recycled Due to Lack of Seat Availability Information or Error	405
Total Changes	3105
Cost Per Change	X $5.46
Total Schedule Change Costs Per Year	$16,953.30

CVIS Procedure

Counselor Time	$1.54
Scheduler Time	None
Administrative Clerical Time	None
Guidance Clerical Time	None
*Terminal Time	.08
Cost per Schedule Change	$1.62

Yearly Costs:

Number of Schedule Changes Per Year:	2700
Cost Per Change	X 1.62
Total Schedule Change Costs Per Year	$4,374.00

Cost Savings Per Year:

Manual Costs	$16,953.30
CVIS Costs	4,374.00
Savings	$12,579.30

* Cost per terminal hour is $1.92. This includes terminal hardware, CPU, modem, telephone line costs, and proportionate CVIS secretary costs.

Benefits of the CVIS Procedure

The counselor time required to make a schedule change is significantly reduced. In some cases a change can be completed in less time that it took to fill out the change request form.

Scheduler and clerical time involved in schedule changes has been eliminated.

The schedule change request form and its associated costs has been eliminated. The form does not have to be filled out, distributed, referred to, or filed.

Many manual functions have been eliminated.

Master schedule and seat availability information are immediately available at the terminal.

The guidance department does not have to be provided with a manually prepared master schedule.

The master schedule (section tallies) is automatically updated. This was a manual procedure.

The student's schedule is automatically updated.

A complete new student schedule is printed at the terminal.

Since a complete schedule is distributed, those departments who maintain student schedules do not have to manually update them (simply replace the old with the new).

The student's new schedule is legible. Previously, the new class was written over the old class on the schedule. If there were too many changes, the schedule became illegible and had to be retyped.

Most changes can be made immediately, by the counselor, during one student-counselor session. Previously this could have taken up to four sessions.

The counselor does not have to physically retrieve a student's schedule in order to make a schedule change.

Errors made under previous manual procedures have been eliminated.

Through immediacy of information transmitted, attendance is more likely to be correct.

There has been an improvement in student-counselor relations.

The counselor has the personal satisfaction of a job complete and accurate.

The problem of referring to a student's schedule that has not been updated because of a previous change, is eliminated.

Because class section tallies are immediately available (and current), it is easy to enter a transfer student's schedule. And, since it is printed out at the terminal, it does not have to be typed.

Manual changing of grade cards is eliminated, since they are not originally punched until grade reporting time.

* The system punches an attendance card.

* A drop list is printed.

* These functions are not part of CVIS, they are run as batch jobs at the end of the day.

EXISTING EVALUATION OF THE CVIS SYSTEM

It is hoped that members of the Consortium will continuously evaluate the system and that in the future the list of evaluation reports will be much longer than at present. There is no intention to eliminate from this list any available studies, and if such elimination has occurred, please notify the Executive Director of the Consortium so that this listing can be updated.

Title	Type of Document	Availability
Harris, J.E. Analysis of the Effects of a Computer-Based Vocational Information System on Selected Aspects of Vocational Planning.	Dissertation	University Microfilms 300 N. Zeeb Road Ann Arbor, Michigan 48106
Melhus, George. Computer-Assisted Vocational Choice Compared with Traditional Vocational Counseling.	Dissertation	University Microfilms 300 N. Zeeb Road Ann Arbor, Michigan 48106
Price, Gary. A Comparison of Computer and Counselor Effectiveness in Assisting High School Students Explore and Select Courses.	Dissertation	University Microfilms 300 N. Zeeb Road Ann Arbor, Michigan 48106
Van Dusseldorp, Ralph et. al. Project CVIS Evaluation - First Year Report (1971-72)	Third-party evaluation	Mr. Richard Baumer 4401 Sixth Street S.W. Cedar Rapids, Iowa 52406
Van Dusseldorp, Ralph et. al. Project CVIS Evaluation - Second Year Report (1972-73)	Third-party evaluation	Mr. Richard Baumer 4401 Sixth Street S.W. Cedar Rapids, Iowa 52406

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Harris, J.E. Analysis of the Effects of a Computer-Based Vocational Information System on Selected Aspects of Vocational Planning.

Unpublished doctoral dissertation. Northern Illinois University, DeKalb, Illinois, 1972.

Myers, R.A., et.al. Educational and Career Exploration System: Report of a Two-Year Field Trial.

New York: Teachers College Columbia, 1972

Super, E.D., et.al. Career Development Inventory, Form I.

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